FREIGHT TRAFFIC: SHIPPERS LOOK AT INTERMODAL TRANSPORT

November 25, 1968

RAILWAY AGE

THE TRANSPORTATION WEEKLY

SP's TOPS: an "astronaut's eye" view of the railroad

p. 32

How Terminal Performance Control works on the NP

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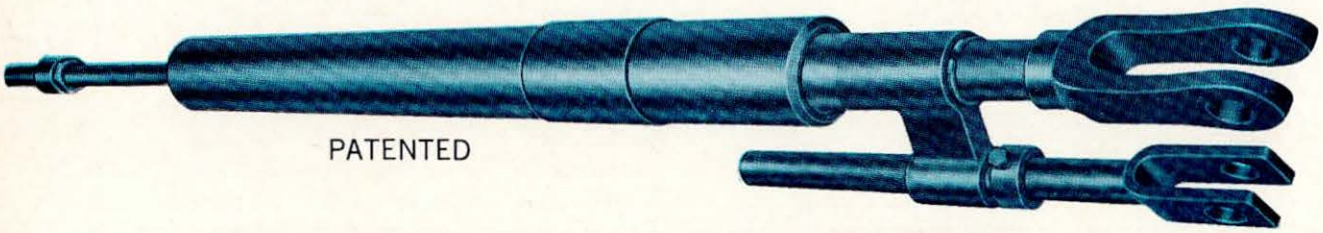

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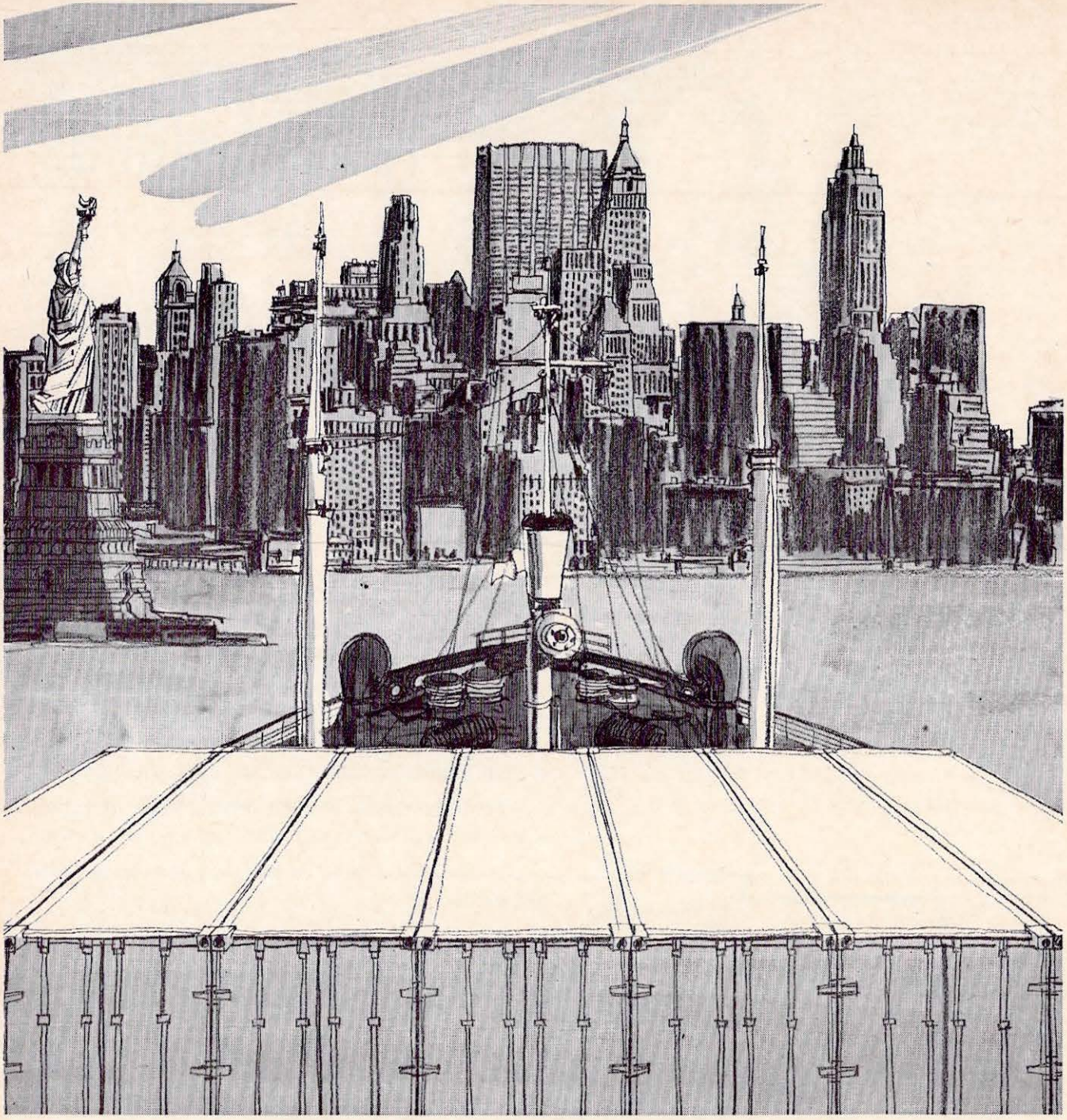

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RAILWAY AGE

Nov. 25, 1968 • Vol. 165, No. 21

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. . . AND COMING NEXT WEEK

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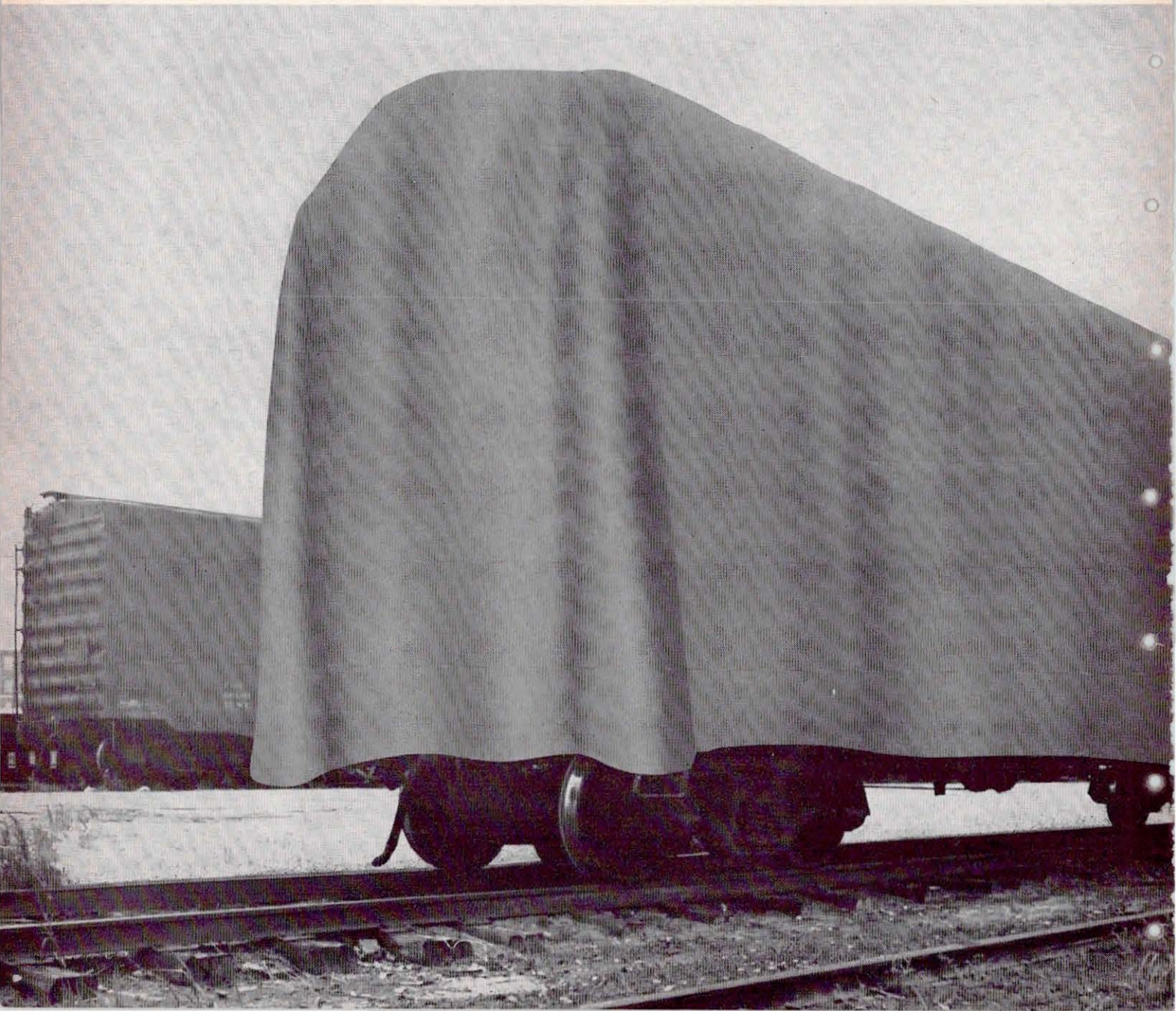

SHORT AND SIGNIFICANT

Milwaukee sets special meeting of stockholders

Milwaukee Road shareholders are being called to a special meeting Dec. 13 in Chicago, in another step toward merger of their company and Chicago & North Western. The purpose of the session: To take action on the July 16 plan of reorganization and agreement of merger covering Milwaukee-C&NW unification.

Railroad link proposed for new Chicago airport

When a government agency says 800 new airports should be built during the next five years, one single project doesn't loom very large—unless it involves a point like Chicago, already possessor of the world's busiest airfield. Chicago is having its problems in choosing a site for a new terminal. And now there's a new suggestion, from Northwestern University's Stanley Berge. Berge proposes that the jetport be built about 45 miles south-southwest of the Loop—and that Illinois Central's electrified suburban-service line be extended to serve the terminal.

Post Office ends CSS&SB mail contract

The mail must go through — but not, apparently, via Chicago South Shore & South Bend. Termination of a contract covering Chicago-South Bend mail transportation brought this comment from CSS&SB President James B. McCahey, Jr.: "We have been told by the Post Office Department that our service and operations were satisfactory. While the dollar amount involved was not large compared with general Post Office agreements with most railroads and airlines, it meant a great deal to us in better utilization of some of our equipment. It also meant some slight help to our stockholders who are subsidizing our passengers."

Something new in unit trains: 15,000 tons of potash

Great Northern and Burlington have moved their first potash unit train—115 covered hopper cars, 15,000 tons, from Northgate, N.D., to Mendota, Ill., from International Minerals & Chemical Corp. to the farms of the Midwest. Potash traffic involved in the movement originates at Esterhazy, Sask., near the border, and is brought to Northgate for rail shipment. GN takes the train 557 miles to Minneapolis, and Burlington runs the 370 miles to Mendota. In addition to this operation, IMC also plans to ship potash from Esterhazy to terminals near Minneapolis and Beardstown, Ill.

A tale of four "Cities"—which may become one

Change is in the offing for the "City" passenger trains—at least on the east end of their runs. The Milwaukee Road is planning to ask Illinois Commerce Commission approval for Chicago-Omaha consolidation of the "City of Portland/City of Denver" with the "City of Los Angeles/City of San Francisco/Challenger." The move, Milwaukee says, is made necessary by declining patronage and increasing deficits. Meanwhile, the railroad is also taking action on another aspect of its passenger service—notifying the Interstate Commerce Commission of proposed discontinuance of a pair of trains between Minneapolis and Aberdeen, S.D. RPO operation on the trains ended early in October and loss of this revenue, Milwaukee says, "will pyramid the deficit." Patronage has been steadily declining, and in the railroad's view passenger-use and the remaining mail and express business "does not economically justify continued operation" of the trains.

Budd, Spector sign licensing agreement

Under a licensing agreement announced last week, the Budd Co. of Philadelphia will manufacture and market the VARI-DECK materials handling system developed by Spector Industries, Inc., Chicago. VARI-DECK is described as a double-deck system for highway trailers, box cars or containers which "allows freight to be placed at any desired height above cargo stowed on the floor" of the vehicle.

MONDAY MORNING REPORT

SOUTH AMERICA: REVOLUTION BREWING?

New container services are mushrooming along the world's major shipping lanes. The stage is set for expansion of rail/sea/rail/truck links between the technically advanced countries. But how about the developing nations? Will they get a piece of the intermodal action? Are they even interested? Some answers came at the XII Pan American Railway Congress, which ended last week in Buenos Aires. Both in technical papers and in the equipment displayed at the supply show running in conjunction with the Congress, Latin Americans gave strong evidence that they intend to be in on the container revolution.

CONTAINERIZATION GAINS A FOOTHOLD

It was generally conceded that outside the U.S. and Canada, container and/or piggyback operations are still in their infancy in the Western Hemisphere. Discussion with Latin Americans at the Congress revealed that piggyback operations have been a success for some time in Mexico (on the Pacifico); have had a mixed reception in Brazil but are about to be reorganized and expanded; and that in Chile, Peru and Colombia, now-modest container services are likely to be expanded. Argentina's own small-scale operations, which have lagged for want of effective promotion, appear to be headed out of the doldrums. Perhaps most significant of all, practically every major port in South America that is served by a railway is getting new facilities specifically designed for containers.

SUPPLIERS ARE READY FOR EXPANSION

The equipment show at Buenos Aires drove home the point. Along with rolling stock, there were plenty of containers on display. They were for the most part of Argentine manufacture licensed from abroad. They ran the gamut of sizes, shapes and materials familiar in the U.S. and Europe—steel or aluminum construction, corrugated sides or reinforced corners, insulated, refrigerated, etc.

SOMETHING FOR THE U. S. TO WATCH?

Ship operators report a small but growing traffic from the U.S. to inland South American points, using trucks for the final part of the trip and, to a lesser extent, rail. One thing is certain: Containerization's well known advantages—reduction of transfer time and of paperwork, freedom from pilferage—have particular meaning in South America. With the railways' technical capabilities and the size of their facilities growing, a major transformation could be coming.

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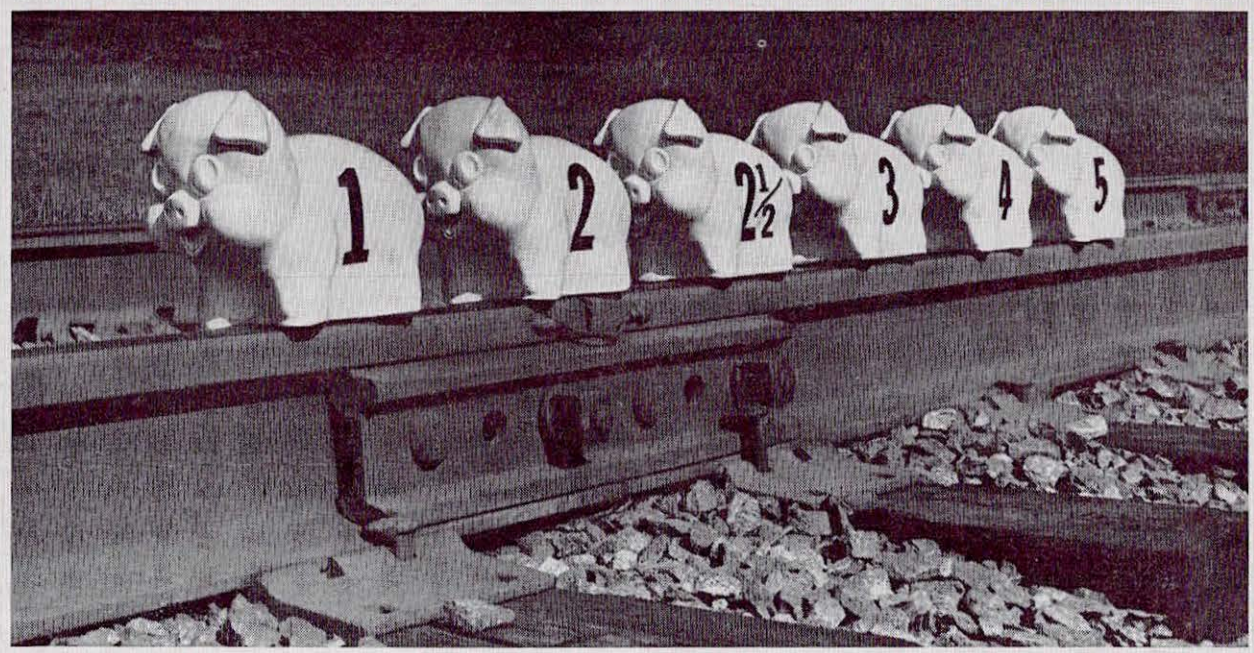

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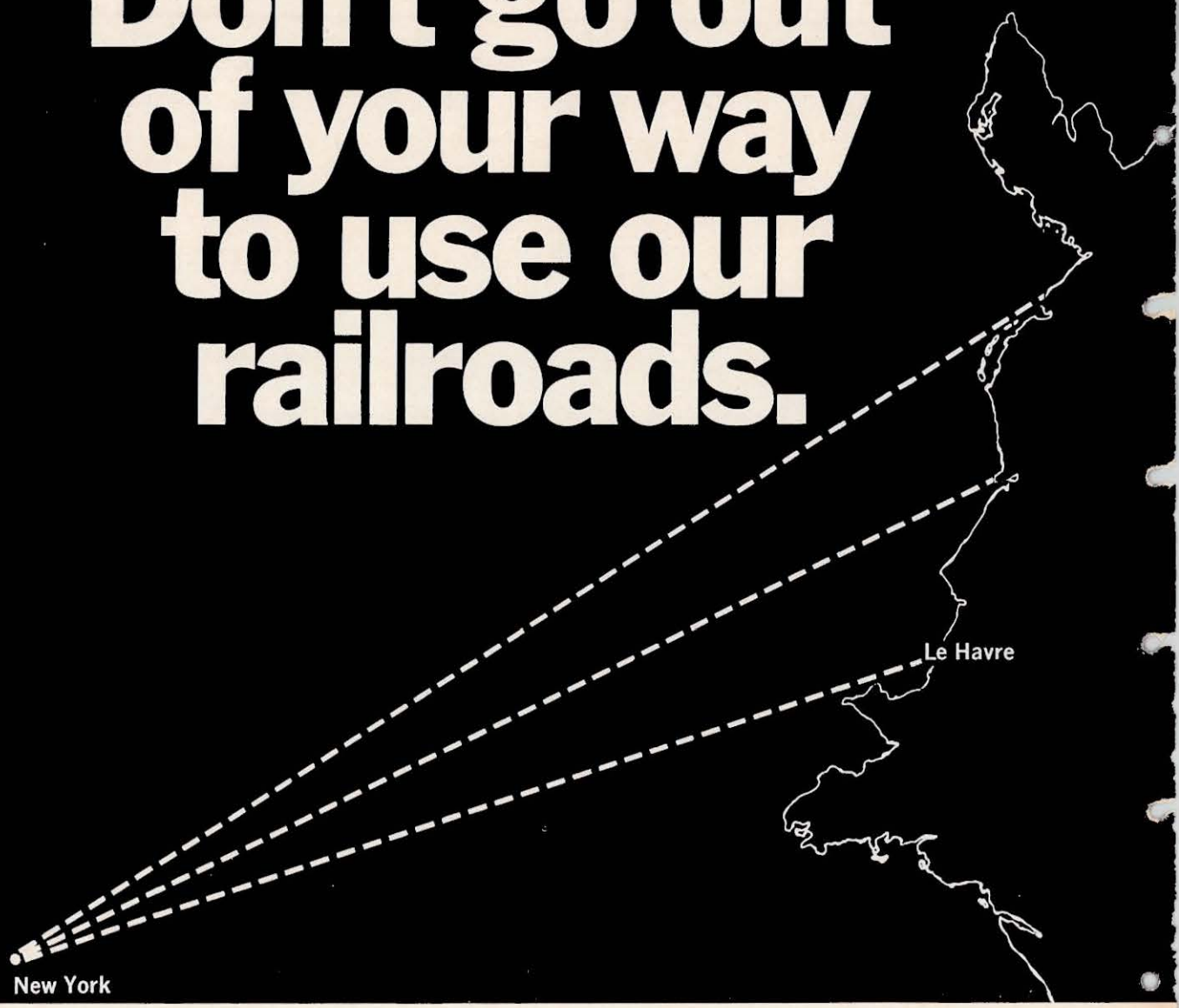

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RAILWAY AGE
THE TRANSPORTATION WEEKLY
November 25, 1968

WEEK AT A GLANCE

Are all trains created equal? The IC says no

Belt Railway of Chicago, Louisville & Nashville, and Illinois Central should restore second brakemen to yard and branch-line crews because other railroads have done so, the Brotherhood of Railroad Trainmen told an emergency board in Washington last week. Rail representatives responded that the cost of the extra men would block extra movements needed to meet competition (RA, Nov. 18, p.12).

BRT thus far had kept covered its much-played safety theme. Its main strategy apparently was the argument that despite 1963 arbitration board approval of crew-consist cuts, a substantial number of railroads have restored extra brakemen since the Jacksonville, Fla., settlement in February. At that time, the struck Southern, Seaboard Coast Line and Missouri Pacific-Texas & Pacific agreed with BRT on how to decide how many road and yard jobs could be worked with smaller crews. Speaking for the railroads, William B. Johnson, IC president, called addition of extra crewmen a self-defeating move. When crew size increases, the number of crews decreases, and the railroads' ability to meet competition decreases, too, Johnson argued. "I submit there is something absurd to the notion that all trains are created equal," Johnson said.

Federal court okays merger of Northern Lines

A special three-judge Federal court last week approved the Northern Lines merger. However, the court supplied a 15-day stay for possible appeal. Merger of Burlington, Great Northern and Northern Pacific would mean the creation of a 26,500-mile railroad worth $3.15 billion, stretching from Canada to the Gulf of Mexico and from the Pacific to the Great Lakes. Approved by the ICC in December 1967, the merger was blocked by the Justice Department on the argument that traditional strong competition in the merger area would be eliminated. Justice also charged possible illegal agreement on rail service to the city of Milwaukee. The ICC approval was a reversal of its April 1966 rejection of the merger. That reversal was based on "Congressional policy" favoring mergers.

"Train-A-Day" helps shipper, railroad

Planning and close shipper/railroad coordination have done it again—enabling Continental Grain Co. to set up a fast, efficient movement of export corn from southern Illinois to the docks of Rotterdam and Hamburg. Four railroads did a good job for Continental in 1967 (RA, Jan. 29, p.28), but for movement of the '68 crop, the shipper wanted a change in the groundrules—use of railroad-owned equipment, to free Continental's own fleet of covered hopper cars for other uses. Continental approached Missouri Pacific, and the result was what is referred to as "Train-A-Day" by James N. Zarvos, division transportation manager for the grain company at St. Louis. Continental planned to ship 900 carloads, or about three million bushels. Heavy November rains spoiled part of the crop and cut the movement somewhat, but otherwise operations went off smoothly and the Illinois corn was being delivered in Europe 17 days after loading from Continental's East St. Louis, Ill., elevator. Grain moved in 30-car cuts, and spent less than 48 hours in transit between the elevator and New Orleans. With a reduction in intermediate switching this year in the single-line haul, "transit time has been cut almost in half." And, Zarvos points out, "speed is important to us. First, much of the corn has to be dried at East St. Louis, and we have to keep the corn moving rapidly from the dryer to make room for the next load. Second, our terminal facility at Westwego, La., near New Orleans, is geared to both barge and train operation, so we want to utilize its full efficiency by having a steady supply of rail shipments arriving. Sure, we pay a premium for the speed, 17.5 cents per hundredweight compared to 14 cents by barge—but it's well worth it."

GUS WELTY

LINES ON LABOR

THE LABORATORY DOORS are swinging open. The three members of Emergency Board 172—and the public—are getting their first real look at railroad operations with a semblance of modernity so far as manning requirements are concerned. Illinois Central, Louisville & Nashville and Belt Railway of Chicago will be telling the board, and the world, what it's like to run a railroad with crews more nearly tailored to the demands of the job. Officers of the Brotherhood of Railroad Trainmen won't like what they'll be hearing.

IN THE PAST, all considerations of reduced manning had to be approached from a theoretical standpoint. For the most part, neutrals on various boards had to make their judgments on the basis of what the railroads, or the unions, said *would* happen under a given set of circumstances. Now, Board 172 has a distinct advantage: Now, there are facts to go on. And the facts seem to indicate that all the neutrals' judgments of the past were correct: Railroads did not need all the people they were forced to use in train operations; railroads do not need all the additional people the BRT (and the Brotherhood of Locomotive Firemen & Enginemen) want them to employ.

ON TWO POINTS, in particular, the evidence weighs heavily against union arguments. One point concerns workload, the other involves safety. On the carriers' side, it's freely conceded that men working on reduced-size crews will have more work to do. But is "more work" too much work? As the railroads' counsel puts it, "we have conducted an extensive job study that will give the board a good picture of what the typical brakeman does. That typical brakeman is by no stretch of the imagination unduly burdened."

HOW ABOUT SAFETY? Certainly, the railroads say, safety to the employee is an important consideration in any study of work rules: "But we think that the data we will introduce shows conclusively that the presence or absence of a second brakeman has no bearing on safety. Here again, we have had a laboratory experiment for several years on these railroads. The statistical data show that this has led to no significant difference in accident and casualty rates. Indeed —and very importantly — the casualty rate has actually decreased during this period of crew reductions. And surely that is the crucial test. . ."

BOARD 172 has until Dec. 6 to file its report and recommendations. And so the industry waits out another crucial period. Unfortunately, it's getting to be a habit.

Supreme Court upholds Arkansas full-crew laws

Rail safety clearly is a matter of public policy. Until Congress takes up the issue, the provisions of lower legislatures will stand. Therefore, Arkansas can keep its full-crew laws, the Supreme Court said last week as it reversed a district court ruling that the Arkansas statutes no longer are justified as safety measures.

"As we have said many times, Congress unquestionably has power under the Commerce Clause (of the Constitution) to regulate the number of employees who shall be used to man trains used in interstate commerce. In the absence of congressional action, however, we cannot invoke the judicial power to invalidate this judgment of the people of Arkansas and their elected representatives as to the price society should pay to promote safety in the railroad industry," the Court said in a 7-1 decision. Justice Douglas dissented. Justice Fortas did not participate.

The Court said railroads have not shown enough change in circumstances to justify departure from three previous decisions (1911, 1916, 1931) that the Arkansas laws are constitutional. Most recently, railroads had charged that the laws violate the due process and equal protection clauses of the 14th Amendment and the Constitution's Commerce Clause by blocking, burdening and raising the cost of interstate transportation.

A district court ruled that the laws do violate due process because they are "unreasonable and oppressive," but did not conclude they discriminate against interstate commerce. The lower court said the full-crew requirements have "no substantial effect" on the safety of rail operations.

In response, the Supreme Court said: "We think it plain that in striking down the full-crew laws on this basis, the District Court indulged in a legislative judgment wholly beyond its limited authority to review state legislation under the Commerce Clause. The evidence as to the need for firemen and other additional crewmen was certainly conflicting and to a considerable extent inconclusive."

Responsibility of the lower court for making "findings of fact," the Supreme Court added, does not authorize resolution of conflicts-in-evidence against the legislature on the basis that the Arkansas viewpoint is only "pure speculation" without convincing statistics.

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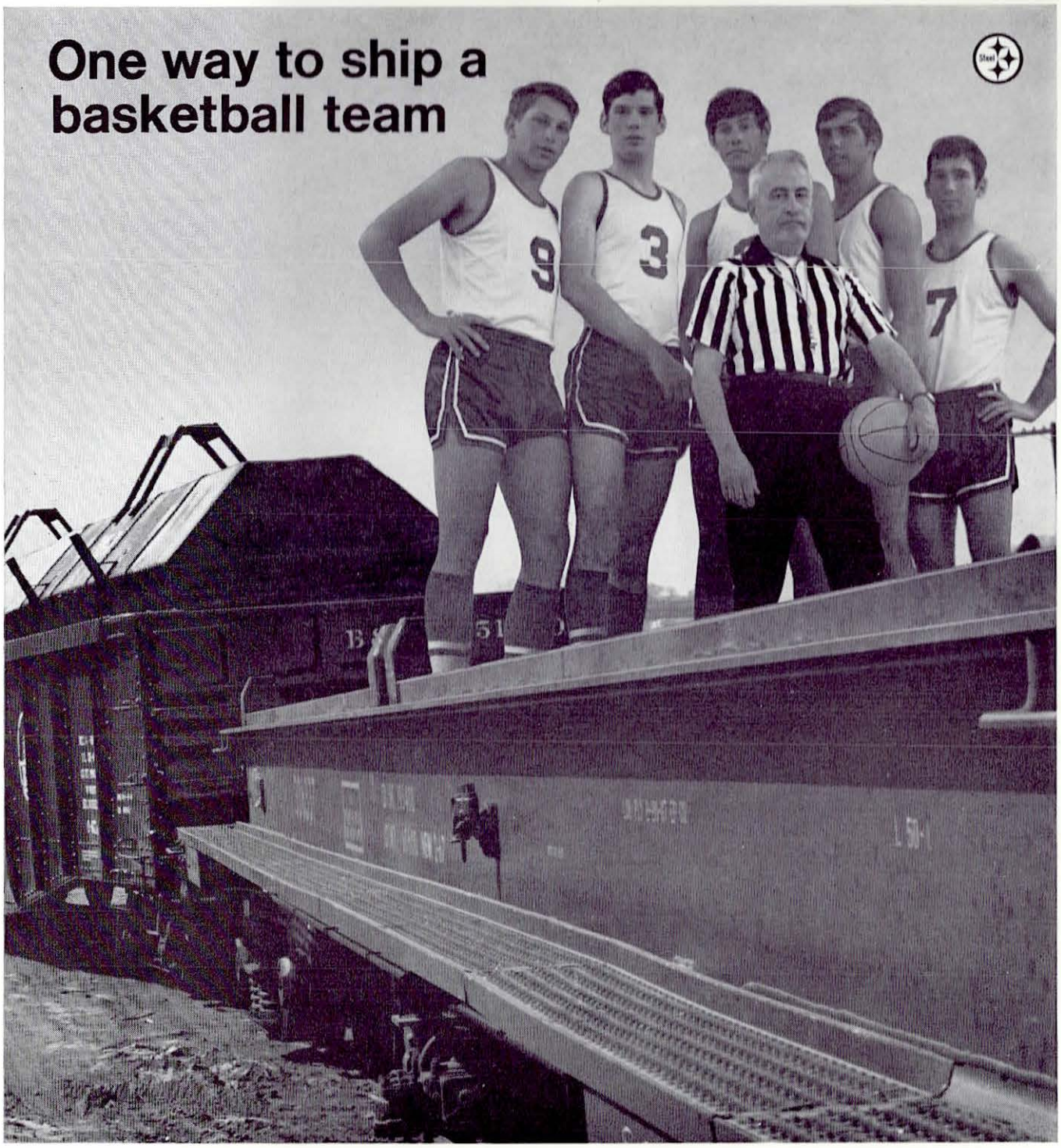

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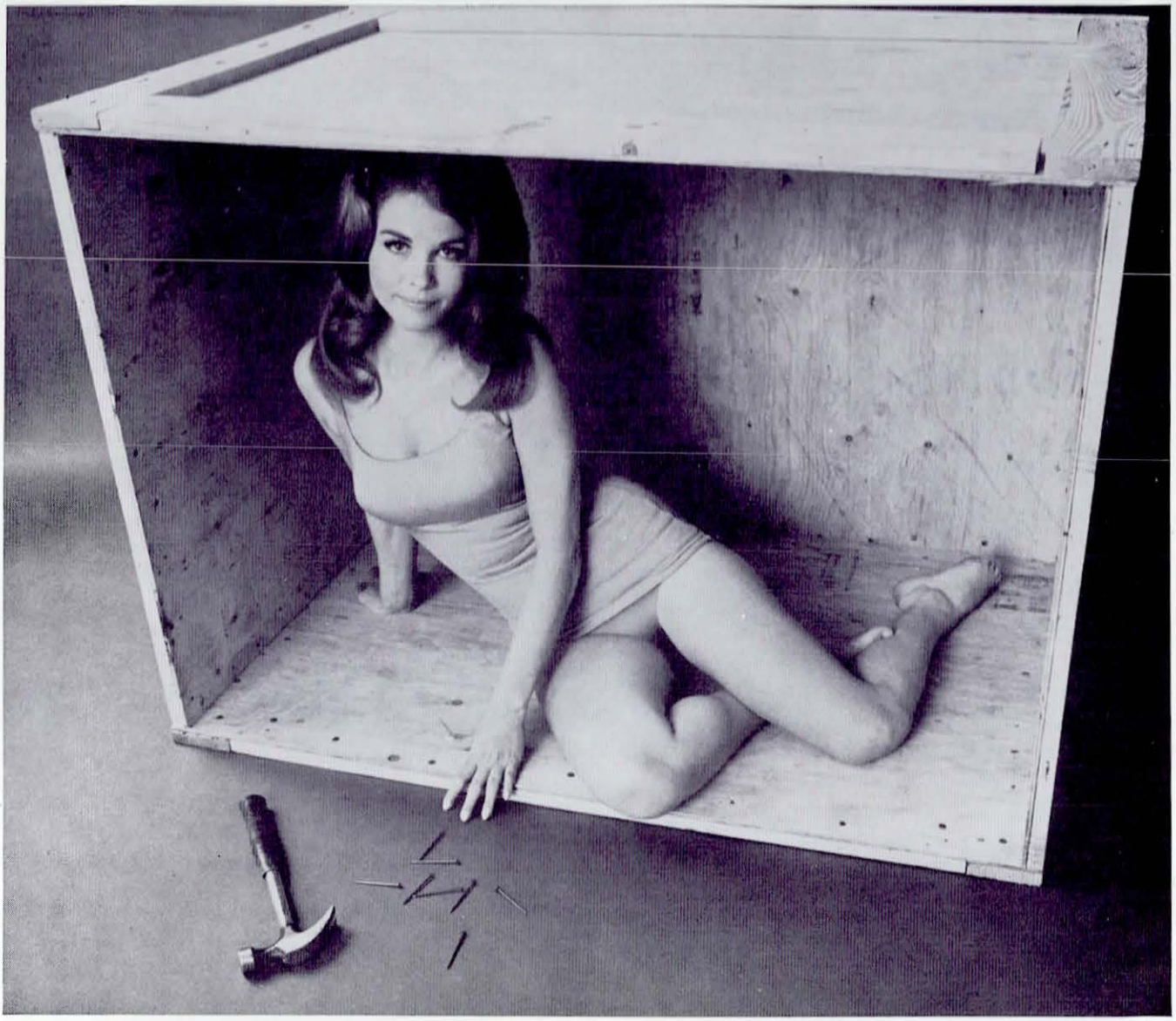

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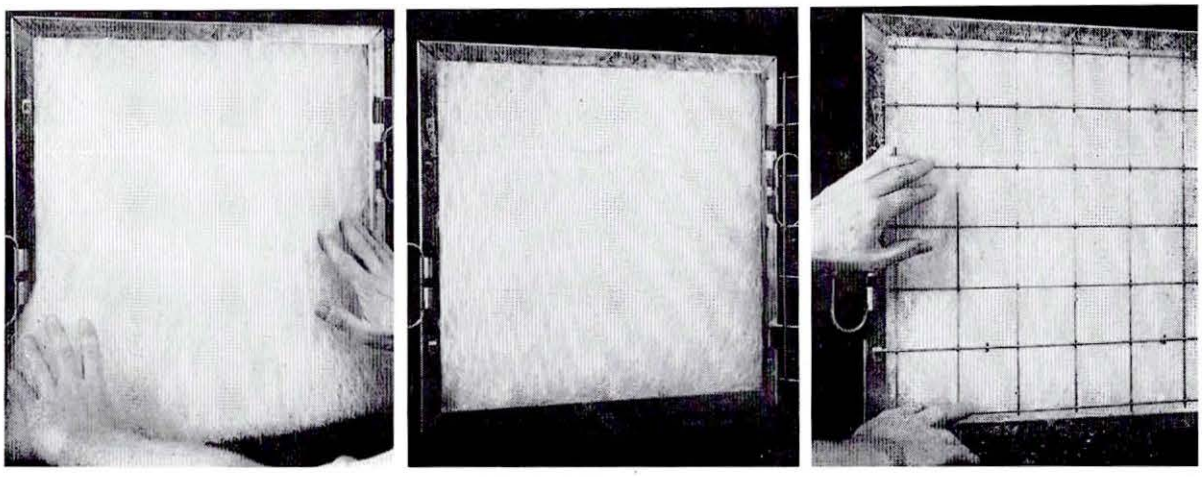

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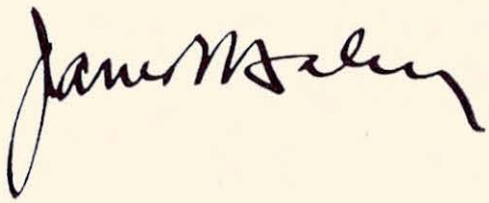

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Circle 13 on coupon page 62

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Change for the better with Alcoa Aluminum

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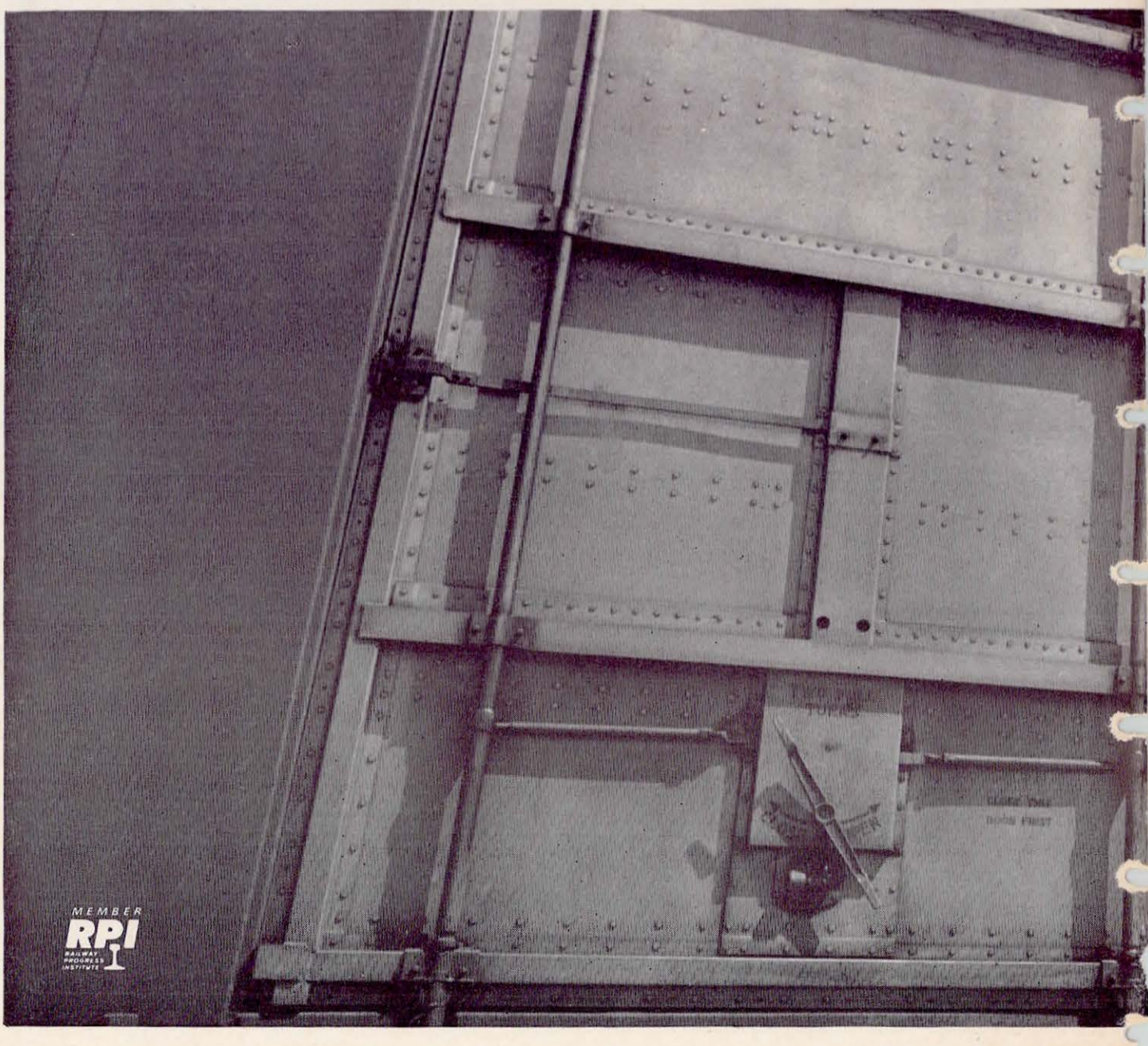

door set weighs only 1,300 lb, about 1,500 lb *less* than steel doors. Think about your freight car rolling through mountain snows or desert heat or being ambushed by rock-heaving little kids. Well, don't sweat the paint job. Parts made with Alcoa Aluminum needn't be painted. They resist everyday wear and tear, and tougher knocks, too.

Car components made with Alcoa Aluminum save you money over the long haul. Learn how you can get a clear track to greater profits with doors, roofs, hopper car running boards, car ends, bulkheads, lading bars and reefer floor racks made of strong, light Alcoa Aluminum.

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The old way of serving shippers was to provide information on available railway services. And then to match those services to the shippers' transportation needs.

But Northern Pacific has a new way.

We've established a Market Development Department. And divided it into major industry areas including forest products, grain and grain products, and construction materials. And into specialized product areas such as piggybacking, container-on-flat-car and export-import services.

The marketing experts in each of these areas are conducting research in their specialized fields. And making recommendations to NP management on new programs.

So instead of adapting shippers' needs to existing railway services, we'll develop and provide *new* services tailored to individual shippers in their various commodity areas.

For more information on Northern Pacific's new marketing group, contact C. Duane Carley, Director of Market Development, Northern Pacific Railway, St. Paul, Minnesota 55101.

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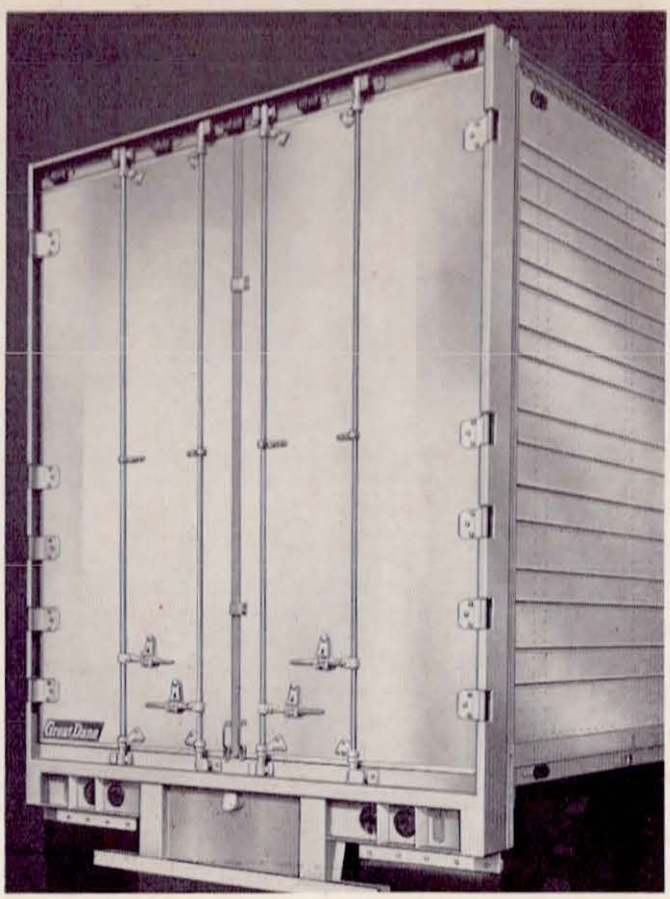
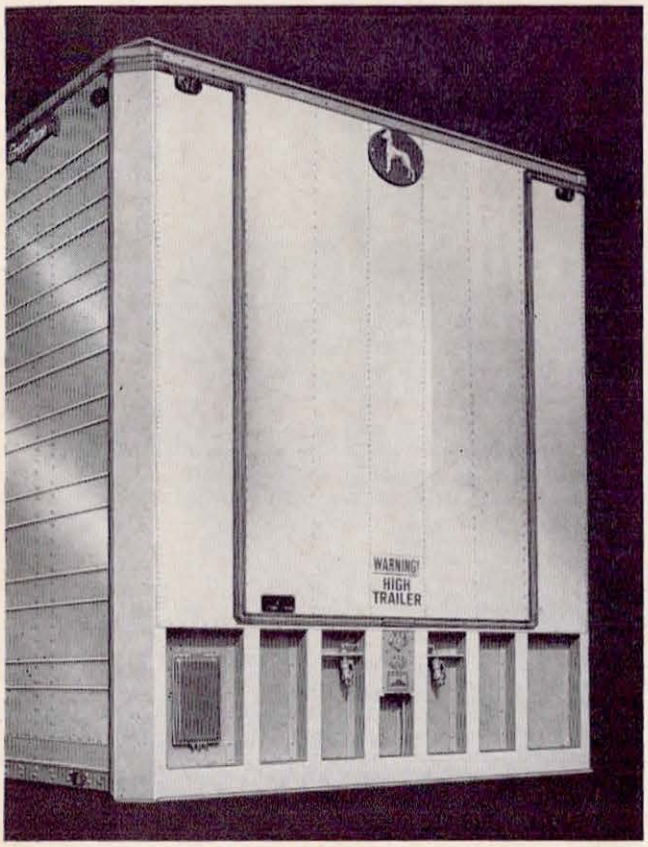
Our marketing experts are searching for clues to serve you better.

WE'RE PULLING A FEW SURPRISES ON THE NORTHERN PACIFIC RAILWAY

Circle 15 on coupon page 62

Great Dane piggybacks are built tough for lasting railroad service





An extra strong and rigid rear end protects lights, hardware, doors and door hinges. Massive bottom corner castings take dock shock and distribute it to the side rails.

Aluminum faced 1¼" plymetal doors are supported by ten high strength recessed hinges with lower hinges in the area where possible cargo shift damage might occur. Opened doors provide access to full inside width of trailer. Doors are locked into place by four heavy duty galvanized locks.

Up front the nose is extra strong and rigid with six 3"-deep steel hat section posts which run full height. Electrical connectors and glad hands are fully recessed and protected by the posts.

Beveled front corners are steel to take rugged blows, while allowing the interior lining to be square in the corners for maximum cube and cargo area. A four foot high steel interior bulkhead wraps around from the second side posts to the matching post on the other side. The strength of the front is further increased by a ¾" lining. The entire front end is constructed as a tough, one-piece unit.

For complete details on some of the strongest piggyback trailers made, write to Great Dane Trailers, Inc., Savannah, Georgia 31402.

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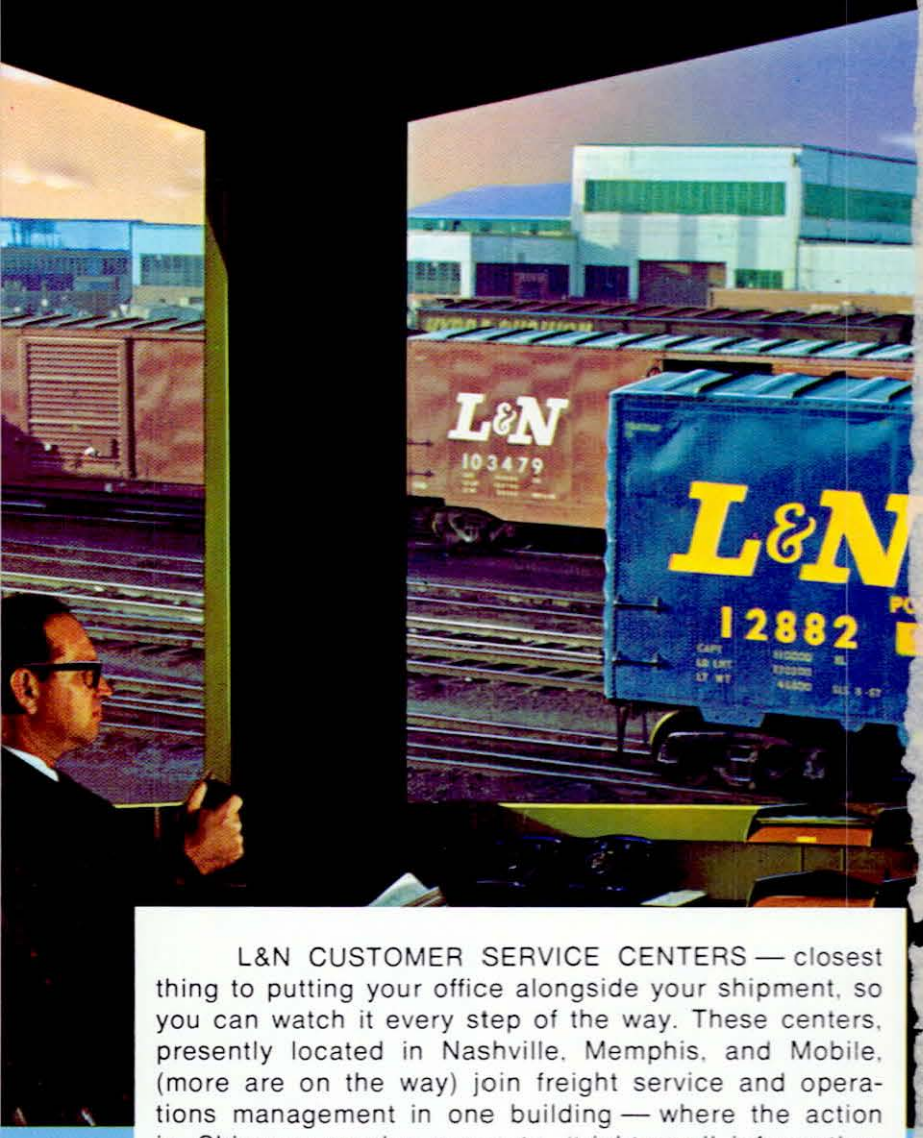

L&N CUSTOMER SERVICE CENTERS — closest thing to putting your office alongside your shipment, so you can watch it every step of the way. These centers, presently located in Nashville, Memphis, and Mobile, (more are on the way) join freight service and operations management in one building — where the action is. Shippers receive accurate, "right-now" information. *One call does it all for data on rates, car availabilities, schedules, arrival times . . . whatever you need to know.* Customer Service Centers are a "first" at L&N because at L&N, Customer Service always comes first. □

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LOUISVILLE AND NASHVILLE RAILROAD

Transport Center: A big year

A report by the Transportation Center of Northwestern University for its 1967-68 year shows industry taking a greater role in seeking academic solutions to transportation problems.

John A. Bailey, the Center's director, reported that during the 1967-68 session, management enrolled 400 executives in special programs at the Center, a 36% increase over the previous year.

● **Graduate class expanding.** The Master of Science in Transportation degree program had an enrollment of 12 students, Bailey said, and larger classes are anticipated in the future.

Another gauge which measured the Center's activity in 1967-68 is its library which circulated more than 16,000 publications and compiled 125 bibliographies, Bailey said.

Other highlights included.

— Nineteen faculty members and research assistants engaging in a $200,000 research program on a transportation network planning and evaluation model based on the Northeast Corridor project

— The sale of approximately 2,300 books and research reports published by the Center.

— The completion of seven research projects and monographs by the staff and participating faculty.

● **Broadening horizons.** Based on the report's conclusions, Bailey said he is confident the Transportation Center will provide even larger programs in the future to serve the needs of transportation.

The purpose of interdepartmental studies in transportation which leads to an MS degree is to prepare men for careers in transportation.

Among the subjects of theses undertaken during the 1967-68 year were:

—Design of an information system for a national transportation planning office.

—Network design for urban rapid transit systems.

—Management responses to the total cost approach in physical distribution.

—The public image of American railroads, and,

—The analysis of crane-ramp operations at railroad TOFC terminals.

The MS in Transportation program is administered by the Office of Academic Programs of the Center, with the assistance of a faculty committee of the Graduate School. ■

LUTHER MILLER

AS THE EDITOR SEES IT

COMMON OWNERSHIP: SOONER OR LATER— Nearly everybody seems to agree that sooner or later Congress is going to have to haul the National Transportation Policy into the 20th century and permit the creation of truly integrated transportation companies. Legislation to this end is almost certain to be laid before the 91st Congress. While no one expects quick or easy passage of a common-ownership law, there are growing signs that the climate is warming.

IS DOT COMING AROUND?— M. Cecil Mackey, Assistant Secretary for Policy Development at DOT, recently came out in favor of a single regulatory agency to handle all forms of transportation, and he hinted that the time may be ripe for some degree of common ownership. An even stronger official-Washington view was stated earlier by William H. Tucker, then chairman of the ICC, who declared: "In the years ahead, carriers, shippers, regulators, government and military decision-makers will increasingly be asking themselves, 'How can we get more out of transportation?' instead of, 'How can we get more out of trucks, or railroads, or ships, or air carriers?' "

LATER COULD BE TOO LATE— The thaw, whenever it comes, will come none too soon. At the Baltimore containerization conference a few weeks ago, C&O/B&O Vice President Owen Clarke (a former ICC member) threw out the chilling suggestion that the container might turn out to be no "treasure chest" at all—but "an 8-ft by 40-ft coffin with a railroader in it, and an air freight man, and a ship operator, and a trucker: representatives of four outmoded modes." Just last week, Penn Central President Alfred E. Perlman, warning that government ownership has become a threat not only for railroads but for all modes, expressed his conviction that one way to avoid it would be to let the various modes seek strength under a single corporate roof.

ENTER THE SHIPPERS— DOT Secretary Alan S. Boyd, whose strongest statement on common ownership has been that it is not an area "forbidden to contemplation," has said that any move in this direction will have to come from the bottom up—not from the top down. We read that to mean that Washington isn't going to lobby for the idea, but is prepared to respond to pressures from those most immediately concerned. That group would seem to be the nation's shippers. This issue of Railway Age reports the feelings of major shippers on the subject. What these shippers have to say might provide good homework for those railroaders who will be trying to persuade Congress next year that the common good lies in common ownership.

SP's TOPS: AN "ASTRONAUT'S

The railroad's Total Operations Processing System cost about $22 million. It brings to the railroad industry "a new level of sophistication in the use of realtime computer systems."

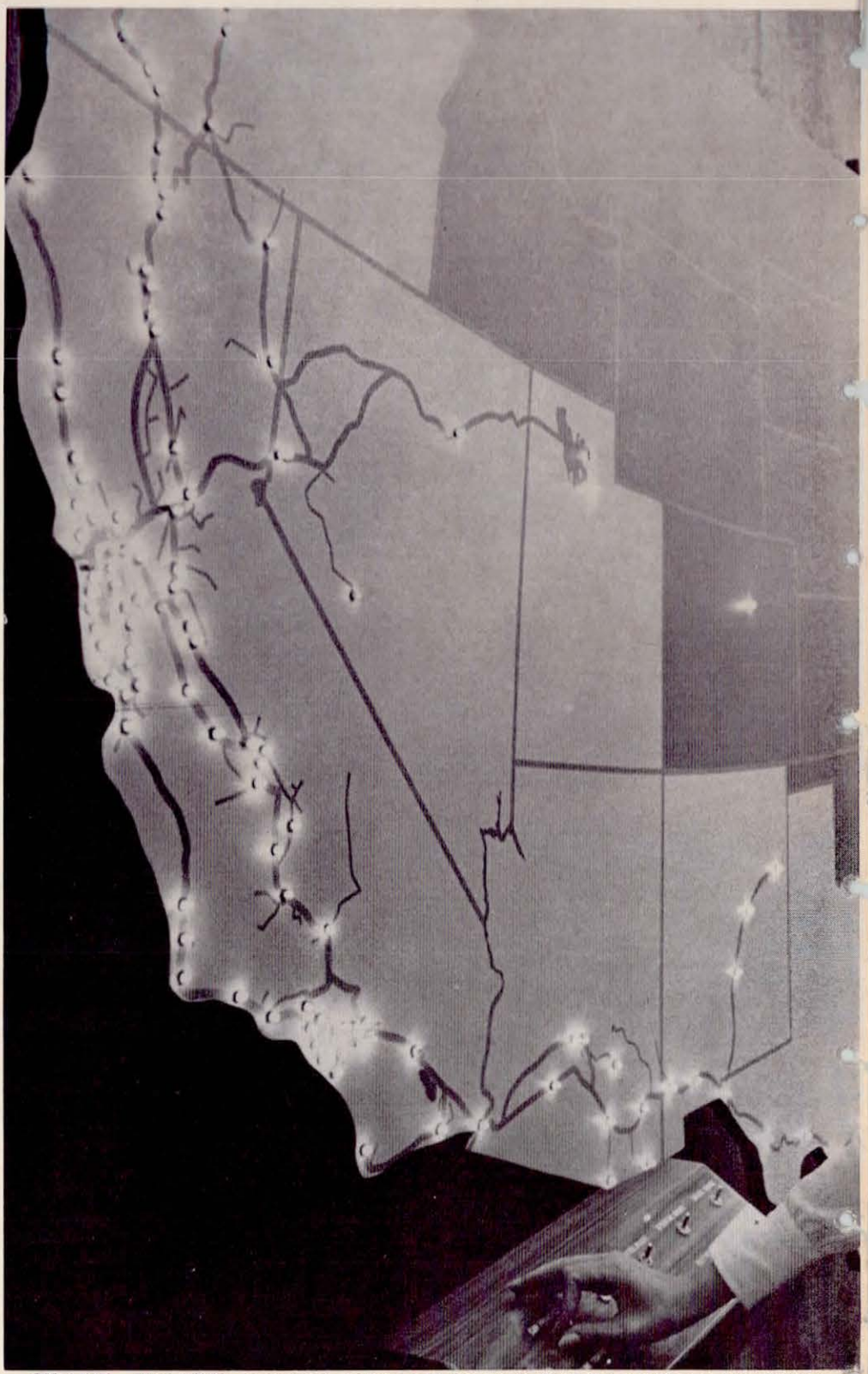
In a world that sometimes seems acronym-mad, Southern Pacific is winging along with a letter-combination that really means what it says: TOPS, for Total Operations Processing System.

By any measure, TOPS is a massive undertaking. SP and IBM have been working toward it since 1960. The original staff of 25 project specialists has grown to 200, and the total effort represents an investment of about 600 man-years of developmental work. Eventually, 450 reporting units at 325 points will be feeding the computer and/or drawing from it. More than 5,600 miles of microwave will tie it all together. The TOPS price-tag: About $22 million. And the TOPS goal: As SP President Benjamin F. Biaggini puts it, "to give us, in effect, an astronaut's-eye view of what is happening over the entire railroad."

● **Stepping up the pace.** At this point, TOPS operation is seven months ahead of schedule. By the end of 1968, it will be in realtime operation over more than half of the 14,000-mile SP system. Now, TOPS is at work at 107 points in Oregon, California, Nevada and Utah. By Christmas, it will stretch east through Arizona and New Mexico to El Paso. And by the end of next summer, the system will cover its full geographical range, from Portland, Ore., around the horn and east to New Orleans, Memphis and East St. Louis, Ill. By 1970, computers in four zone accounting offices will also be tied in. And, SP adds, further refinements, scheduled through 1971, "will develop scores of programs for customer information, car distribution, operating performance studies and accounting processes."

From all indications, TOPS will be well worth the time and money poured into its development. The president of IBM's Data Processing Division, F. G. Rodgers, says TOPS "brings to the railroad industry a new level of sophistication in the use of realtime computer systems. . . . It will be one of the world's most advanced uses of computers, in terms of complexity and scope of application."

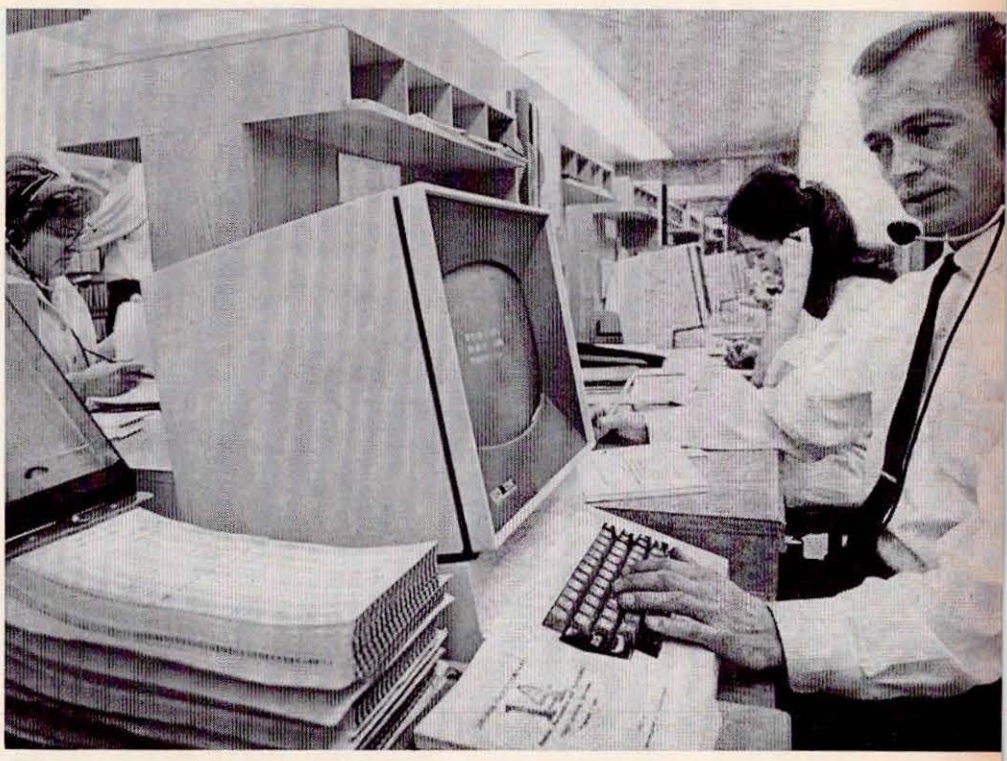
● **Results showing up.** And even with the full system not yet in operation, SP President Biaggini notes, TOPS "is already improving customer service, giving shippers immediate car-location reports. We have been able to accelerate the cutover schedule because of the ease with which the system is being installed, after the extensive advance training we are giving our people."



ON LINE—New TOPS computer system will be an instant information setup linking

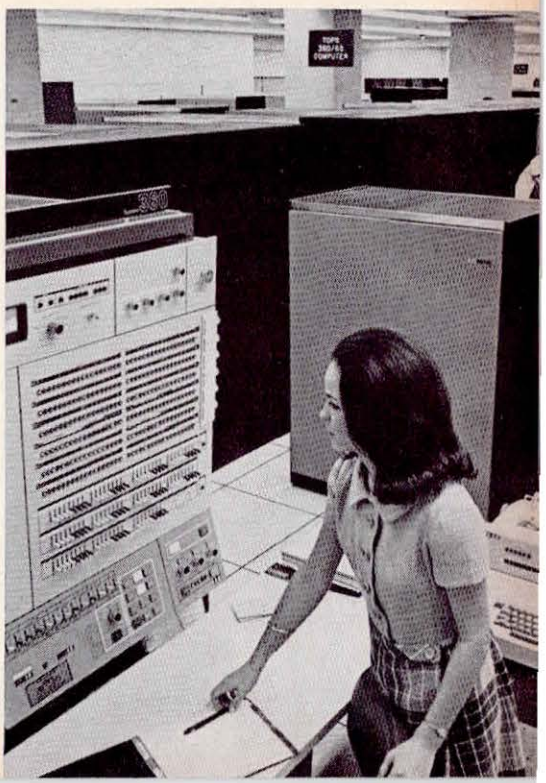
EYE " VIEW OF THE RAILROAD

325 strategic points across the country.

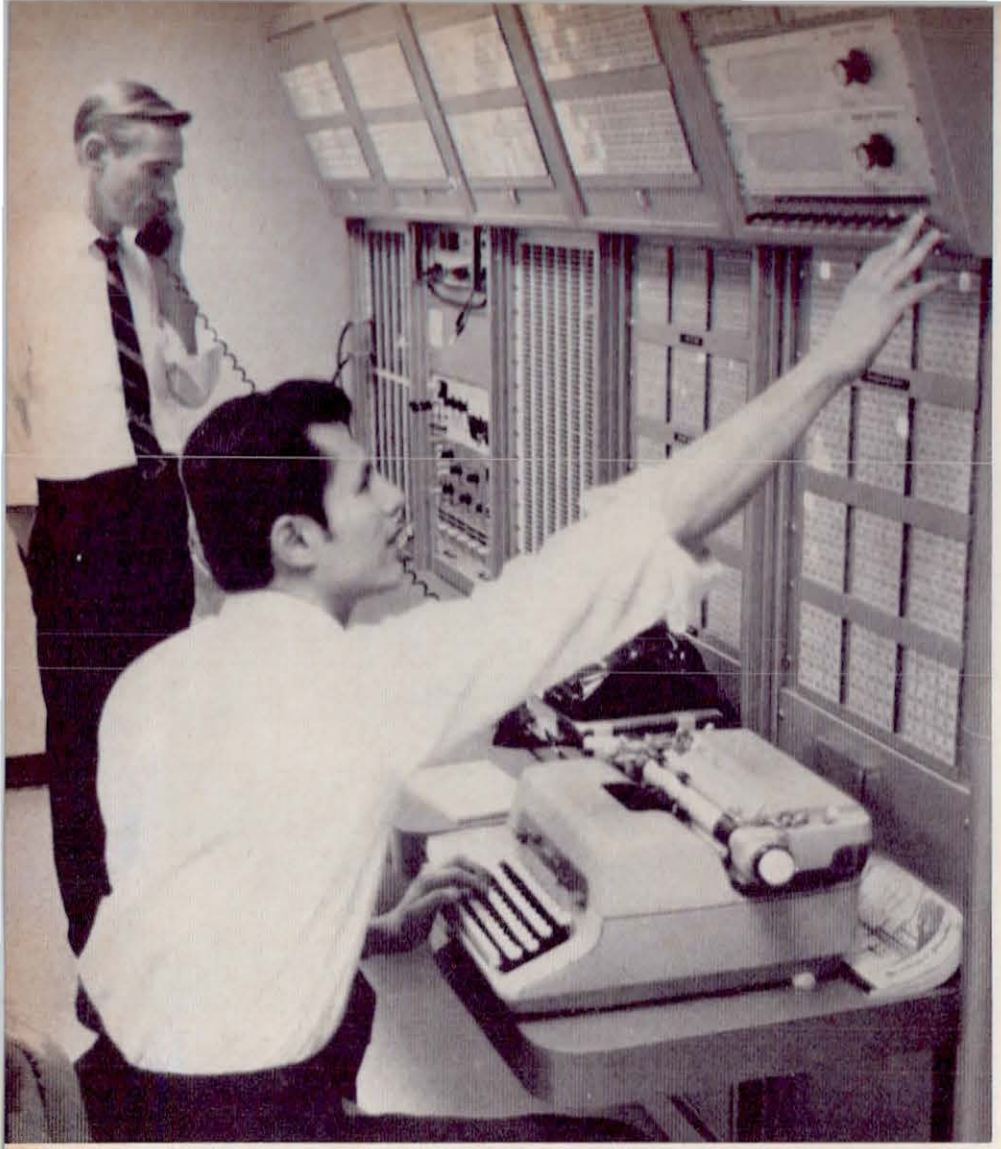


INSTANT INFORMATION—Within seconds a railroad customer can get a location report of a freight car or train from Southern Pacific's new TOPS computer system.

COMPUTER SYSTEM—SP's $22-million TOPS computer-communications system is designed to keep instantaneous track of 93,000 freight cars and 2,300 locomotives on SP lines in 12 states. At left young lady reports and receives car information directly to central computer from reporting unit at Warm Springs yard in Fremont, Calif. Below, heart of new system is IBM 360/65.

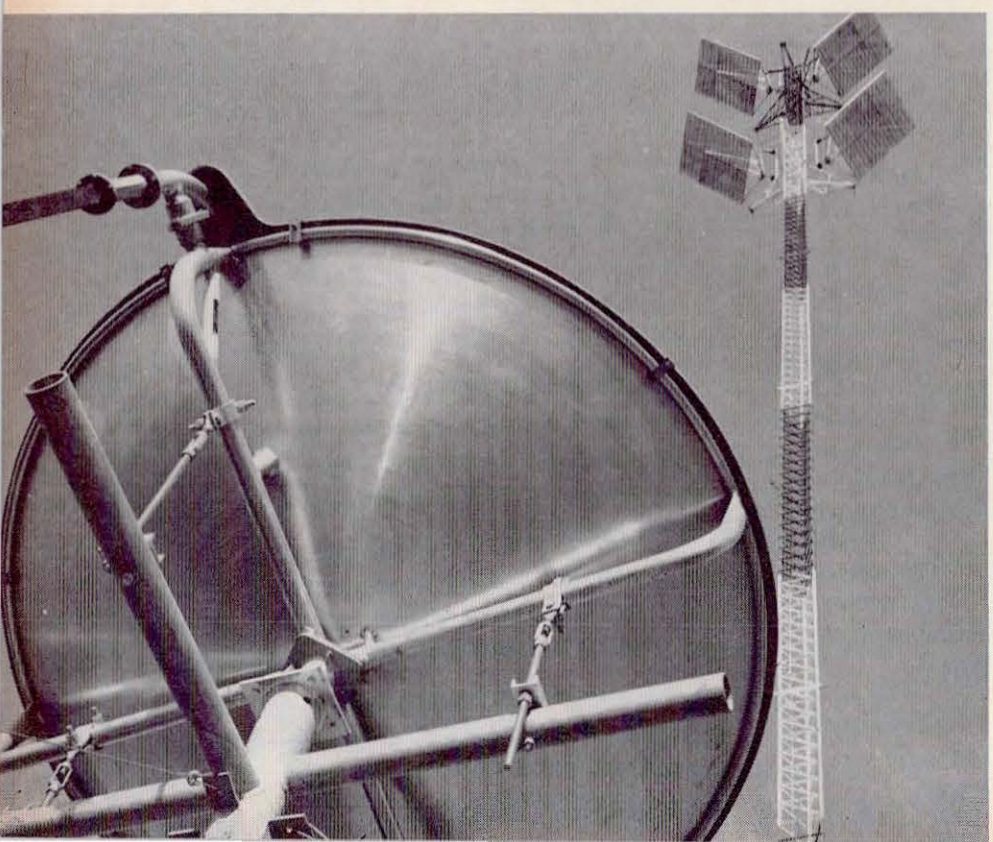


At the heart of TOPS are two IBM 360/65 computers in San Francisco. One of these duplexed units is dedicated solely to the processing of the 300



COMMUNICATIONS HUB—SP communications engineers designed and built this novel electronic control console to handle high-speed data transmission.

MICROWAVE NETWORK—Nation's longest industrial microwave network, SP's 5,606-mile system, provides communications for TOPS.



realtime applications involved in TOPS, in the online data collection and processing function. The second computer is available as a backup, and is used primarily for offline storage and processing of data passed along from the online unit. System/360 versatility also permits use of the support computer for preparation of a variety of management reports and for testing of new TOPS functions which will extend the project's coverage during the next two and a half years.

SP's system uses seven IBM 2314 data storage units, each with eight disk modules. Each of the 360/65s has a memory-cycle of 750 nanoseconds; information in the 2314 files can be retrieved in about 75 milliseconds through the computer.

• **Other units tie in.** Besides the 360/65s which actually operate TOPS, several other computers are, or will be, used with the system. Three 360/40 units in San Francisco are used for systems-research applications—developing car-performance reports, for example, and making simulation studies of operations. Four 360/20 computers in zone accounting offices in Houston, Los Angeles, San Francisco and Eugene, Ore., will be directly interchanging data with TOPS by 1970. And the computers used in class-yard operations at Houston and Eugene will also be feeding data to the TOPS center.

Online and offline reporting devices will vary. More than 200 IBM 1050 units will be used, mostly at major online operating points. The 1050s will make either punched-card or keyboard entries to the central computer, and will produce either print-out or punched-card output. They can also be turned offline, for local-office work. Teleprinter devices of three different models will be used in offline traffic offices and at online points where the volume of business is smaller than at 1050 locations. In addition, SP will have 32 IBM 2260 cathode-ray tube display units to speed up service on car-location inquiries and to permit a fast scan of train-consist data in the operating department.

TOPS itself will be strictly an online, realtime management tool. The central computer and disk files will not keep historical records, but will reflect the current status of each major physical element of operation—each train, yard, industry service area, and each locomotive, car, caboose and crew. Historical records will be maintained in a number of offline computer systems being developed concurrently with TOPS. These systems get their data from TOPS, and each time an online record is updated,

(*Continued on page 65*)

CHECKING TERMINAL PERFORMANCE CONTROL REPORT: Frank Coyne (right), NP vice president-management services, makes a point to President Louis W. Menk (left), and Vice President-Operating N.M. Lorentzsen as report comes through.

How the NP keeps tabs on terminal operation

Northern Pacific's president says that the fallout from new computer technology has provided the railroad industry with "fantastic opportunities" to satisfy the customer's needs.

What's good for the shipper ought to be good for the railroad. But in the case of operating control techniques made possible by the computer, what's good for the shipper may turn out to be even better for the railroad.

Northern Pacific is finding this out, first with its NORPAC customer-report system and now with a new Terminal Performance Control (TPC) system.

NP President Louis W. Menk sums it up: "The race to satisfy the customer's need-to-know has provided the railroad industry with an important period of discovery. In the process of developing special report procedures, adapting new computer technology, speeding up our data-transmitting capabilities and bringing together the kinds of space-age specialists needed for this sort of work, we have opened up fantastic opportunities for introspection and self-improvement."

- **Facts, and how to use them.** The

key, of course, is multiple use of data, taking information generated for customer-related purposes, expanding on it and using it to improve management and utilization of equipment.

NORPAC itself is now about two years old. Essentially, it is a customer-information service. NP installed IBM 1050 data terminals at 25 on-line points and equipped the terminals with Data-Phone attachments to enable field operators to direct-dial a bank of 1050s at the St. Paul computer center. Data can be made available to shippers in print-out report fashion or through direct feed to shipper-operated computer equipment.

The TPC system, in effect for just a short time, expands upon the data gathered for NORPAC operations. Basically, the NP terminal control program is a direct adaptation of the TPC system installed in 1967-68 by Great Northern (RA, June 17, p. 18). The systems operate completely separate now—but the design is such that they can be easily integrated at whatever time the Burlington Northern merger links GN and NP (and Burlington and Spokane, Portland & Seattle as well).

Frank H. Coyne, NP's vice president-management services, says the TPC concept represents "one of the most dynamic uses of both computer capability and data communication that the railroad industry has turned up since computerization was started."

● **Coming: Command and controls.** On NP, Coyne recalls, "we began with a system to report more effectively on what our railroad was doing with box cars moving customers' shipments. We developed report procedures to fill our customers' information requirements and, in doing so, we created a data base from which we have since developed much information for our own use in railroad operation. While our TPC program is really only in its infancy, we're already recognizing big benefits—and we're moving ahead to the next logical step. Within 24 months, we plan to have operational a total, realtime, on-line system. This will be a command and controls system—and it will provide operating management with planning and monitoring information on total railroad operations."

With the new system, Coyne says, "we will be able to give shippers information on any shipment in a matter of seconds. Equally as important, we will be able to evaluate immediately—*immediately*—the status of on-going performance in the movement of equipment over the line and through terminals."

The individual most directly concerned with TPC and the future realtime control system is the operating vice president—and NP's new VPO Norman M. Lorentzsen, is well pleased with the progress his road has made in enlisting computer aids to improve operating functions.

● **No measurement, no management.** Like most top operating officers, Lorentzsen regards operation of terminals as "the most critical area of our business. We adopted the philosophy that you can't manage what you can't measure. And with our terminal performance control system, we're giving our supervisory personnel a tool which helps them make better daily work-planning decisions. It helps them concentrate on the serious problems first. The result is that our car utilization is greatly increased and our service to customers is speeded up."

As adapted to NP operations, TPC works this way:

Standards based on past experience are set up for every possible kind of move within a given terminal area. Complete records are kept on each car moved into the terminal, beginning with the key-punching of complete car identification and information on origin and destination.

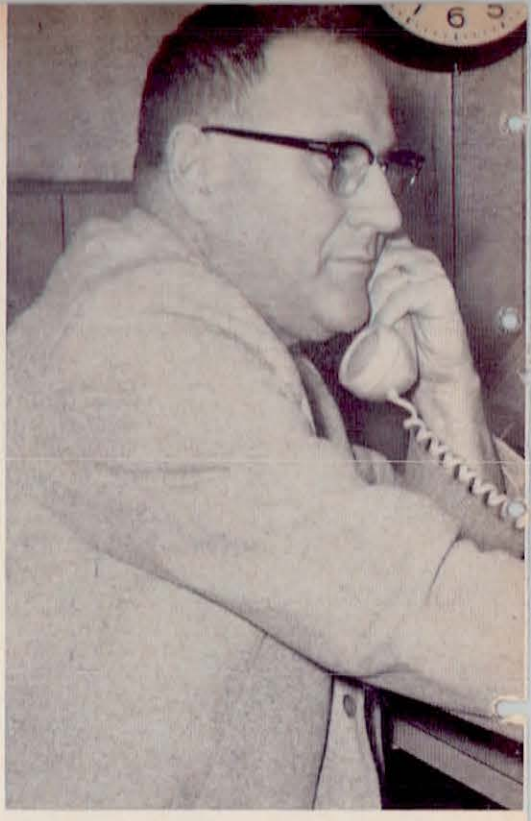
As a car moves through the terminal, each individual move is recorded. Code numbers may show the car has moved from a through train to a repair track or to an industry spur for unloading. In some yards, such as the Northtown complex in the Twin Cities, there are codes for as many as 52 different kinds of moves, each with its own standard.

● **Under standard—or over?** The time-lapse in each move is compared by computer with the standard adopted for that move. A dollar value for the amount of time overstandard, based on a car-day-cost of $3, is affixed when movements go beyond the normal time allotment.

By scanning cost figures for over-standard movements within his terminal, the terminal manager can immediately isolate moves which need attention and give them priority in handling. The aim is to eliminate the chance for a car to be bypassed for an extended terminal delay.

The complete TPC system of reports is far more comprehensive. It includes a daily summary of terminal performance which shows the date, number of cars in the terminal, car movements, crew and engine costs per move, car-day-cost per movement, the total direct costs per movement and the total dollar cost allocated for movements-over-standard.

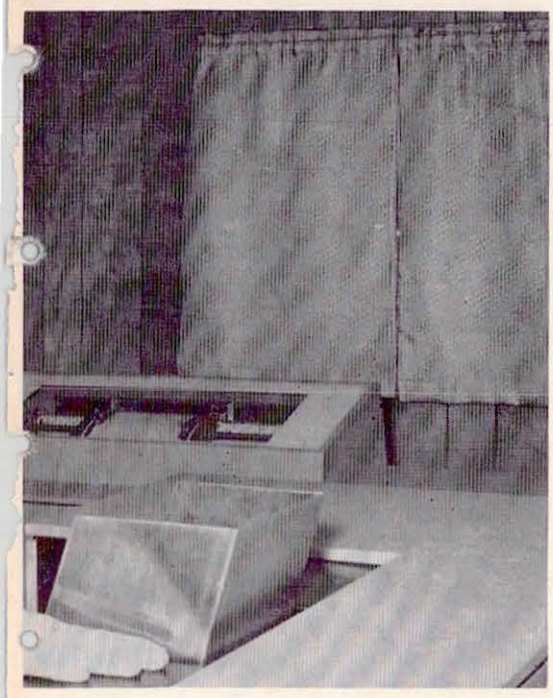
Among the most detailed of the reports is the separate cars-over-standard report. This shows most of the identification and car-location information of each car, plus information on the movements and the number of hours over-standard for each move. Cars moved within the standard do not appear in this exception report.



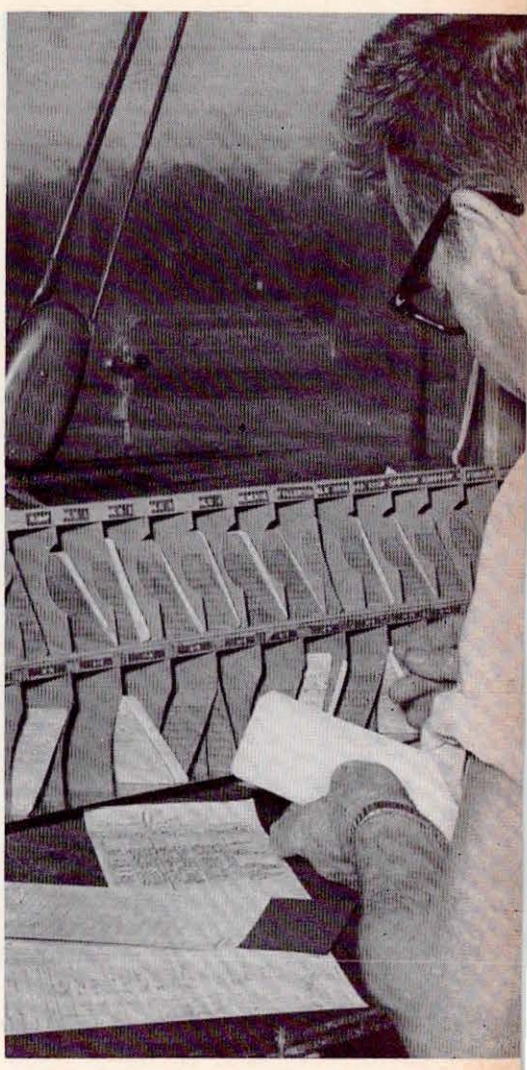
● **For quick decisions.** "With the data on these reports," Lorentzsen says, "terminal managers can quickly decide where work efforts should be concentrated. In a matter of minutes they can plan much of the day's work—and then devote more time to expediting the flow of cars through the terminal area. Crews and equipment are not kept waiting for information on what needs to be done next."

Coyne adds this note: With thousands of cars moving each day in major NP terminals, "it is obvious we need the

FROM THE FIELD
NORPAC report information goes directly from the field to St. Paul with transmission through field-located IBM 1050 data terminals. Data-Phone attachments permit direct-dial connection with the 1050s at the computer center.



PRELIMINARY RUN
Northtown, Minn., Terminal Manager Sid Hall (right) checks out preliminary run on a day's series of TPC reports, as data processed in St. Paul computer center is fed through an IBM 2780 data terminal for printout.



SOME MANUAL WORK
There's still a manual aspect to TPC, out in the yard. As cars arrive in a terminal, cards are key-punched with complete identification data, placed in PICL racks and moved within the racks as cars are physically moved.

kind of key-punch, data-processing, data-transmitting and computer equipment which can keep pace with the flow of information on each movement of every car."

For the basic reports provided in the NORPAC system for shippers, data-handling eqiupment with intermediate speed capabilities was adequate. The amount of information processed was not that great.

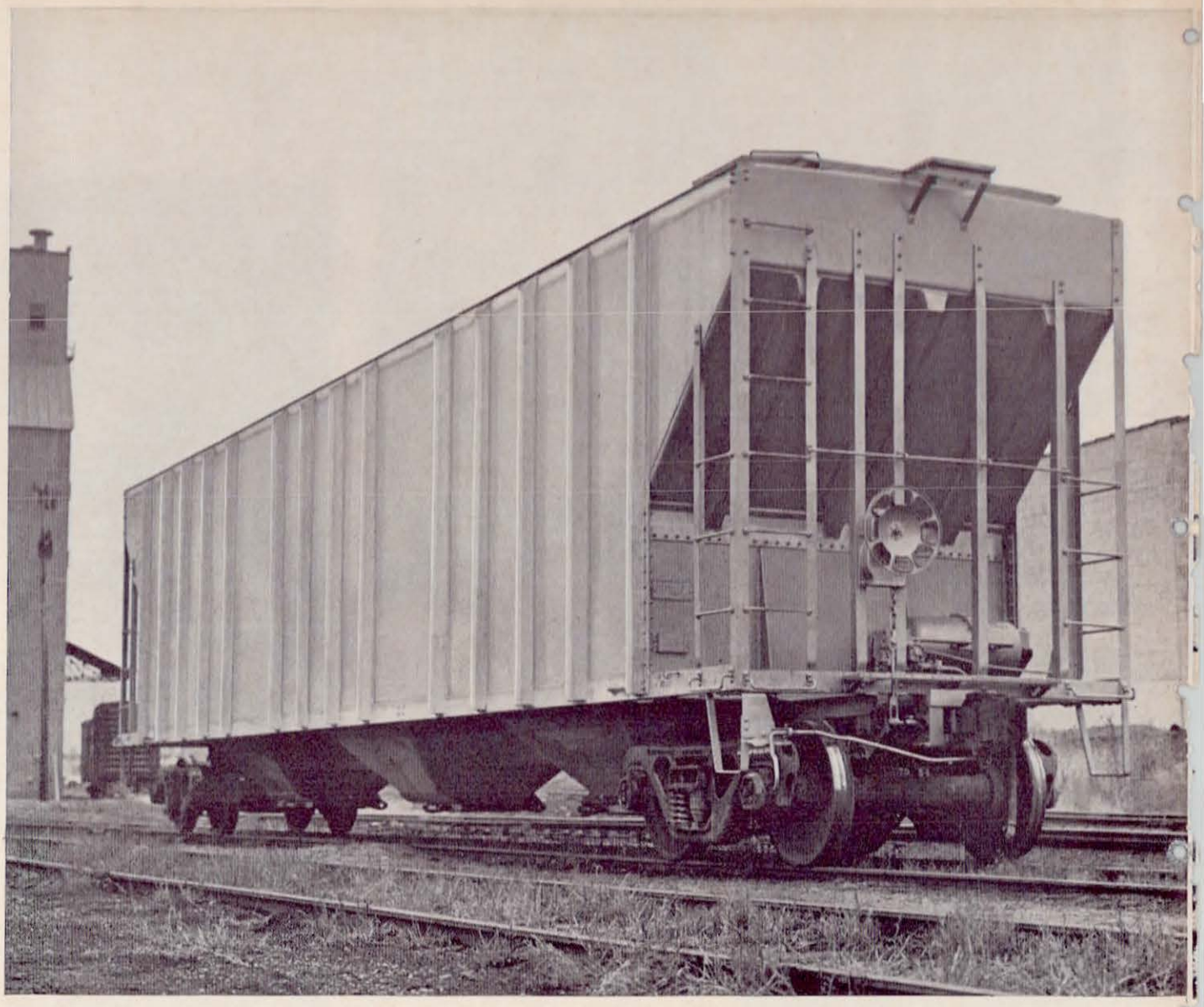
Now, with TPC there is a greater volume-flow of evaluative information moving from the field to the computer center at St. Paul for processing, after which the reports derived are transmitted back to the field for use in terminal operations. This more than doubles the flow of data.

Terminals now in the program are Northtown, Minn.; Yardley, Auburn and Pasco, Wash.; Laurel and Missoula, Mont.; and Duluth, Minn.

At each location, IBM 2780 high-speed data terminals are in service for transmitting information directly to NP's IBM 360 at St. Paul through an IBM 2701 interface unit that serves interpretive functions related to transmission and receiving of information.

Field-location IBM 2780s are equipped with Data-Phones for direct-dial hook-up with the computer. Transmission is now being done over leased lines, but when NP's $8-million microwave installation is linked with Seattle early in 1969, it will take over the transmitting function and make available an even larger data-handling capacity.

● **And a look ahead.** The next big step? Coyne pegs it: "Further integration of our car-reporting systems with communication capabilities that will permit customers to call a central service bureau for immediate response to inquiries on car location and status." ■



This car will work 11 months more..

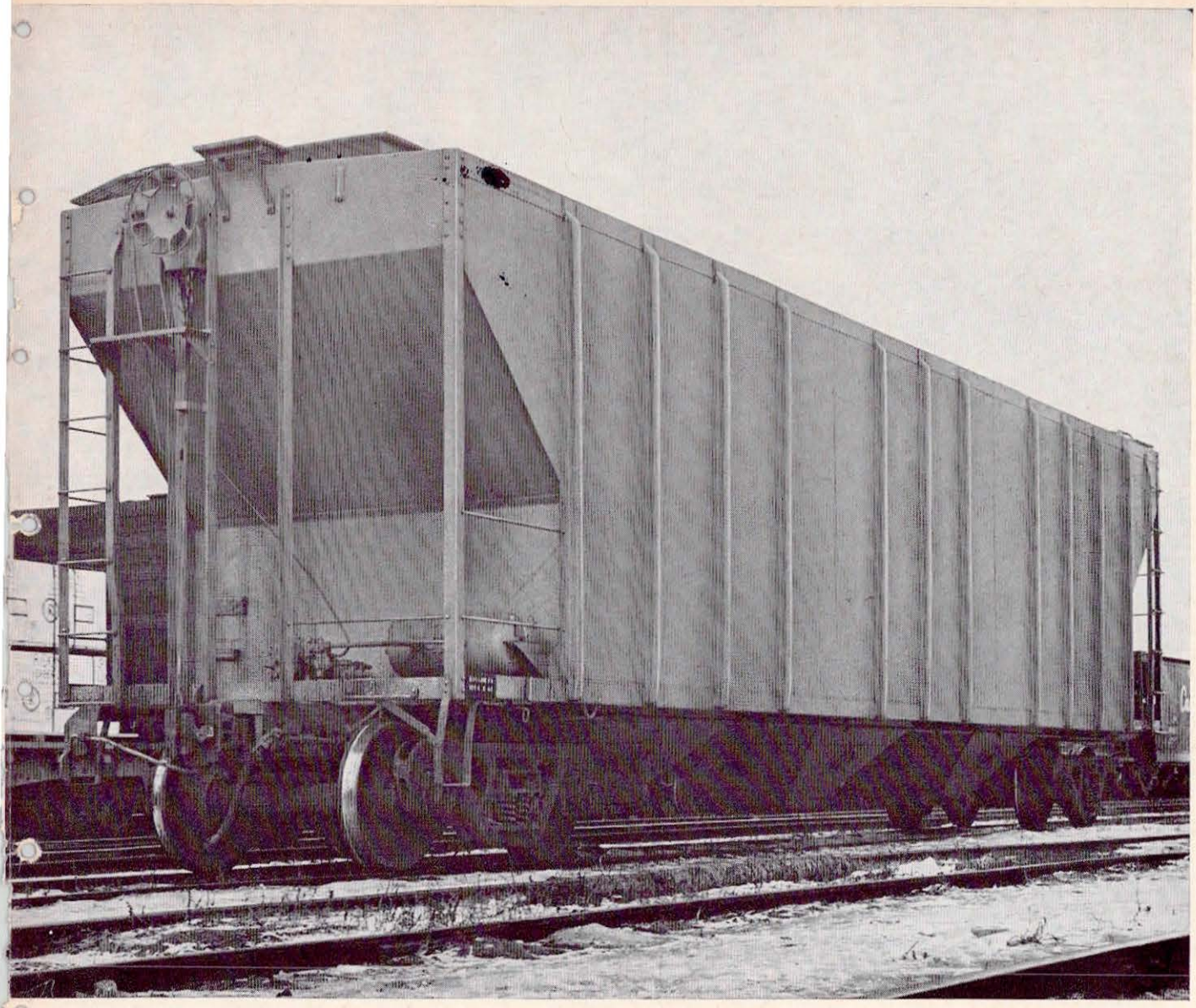
Aluminum-body covered hoppers need no lining,

One of the important differences between steel and aluminum-bodied covered hoppers is a difference you don't see right away. Most steel covered hoppers have interior linings and need re-lining and lining patch-up after a few years of normal service; aluminum cars don't.

This simple fact can mean a difference of *11 months* in utilization during the first 15 years' service of the two cars. Steel cars can expect to have that much down-time for re-lining and lining patch-up in their first 15 years. This was emphasized recently by Mechanical and Transportation Departments of four major railroads. First, these railroads agreed that steel covered hoppers needed complete re-lining every 5 to 6 years, at a cost of $700 each. Interim lining patch-ups were also needed about every 2 years, at a cost of $100.

Average down-time involved for each re-lining or lining patch-up was 7 weeks, including movement to shipper who rejects the car, to the shop where lining work is done, time lost waiting for position in the shop, and back into service. Over 15 years, this adds up to 11 months. Still another cost to be considered is the loss of business while the car is being repaired.

Aluminum-body cars would be working and earning while their steel counterparts are in the shop, because they do not rust, they resist corrosion, clean eas-



than this car in their first 15 years.

save down-time, offer higher utilization.

ily—need only simple hosing and sweeping to stay clean . . . *never need costly interior linings.*

Aluminum cars earn more, too, when they're in service. They carry less deadweight, more payload. They earn higher per diem rates in off-line service, and have over $2,000 more scrap value than steel cars.

Investigate all the benefits these cars offer with the leader, Reynolds. Reynolds pioneered in developing aluminum for the railroad industry, still supplies more of the metal for railroad equipment than any other company. Contact your man at the local Reynolds office or write *Reynolds Metals Company, P.O. Box 2346-TM, Richmond, Virginia 23218*

Before you order covered hoppers, consider these facts:

1. Aluminum-body cars need no linings, offer higher utilization.
2. Aluminum-body cars resist corrosion, never rust, are easy to clean out.
3. Aluminum-body cars carry more payload.
4. Aluminum-body cars earn more off line per diem.
5. Aluminum-body cars reduce operating costs.
6. Aluminum-body cars have high scrap value.

REYNOLDS
where new ideas take shape in
ALUMINUM

aluminum

MEMBER RPI

Circle 16 on coupon page 62

NOVEMBER TRAFFIC POLL

QUESTIONS

1. **Would the provision of intermodal transportation service be helpful to your own company?**
   YES (42) NO (9)

2. **What do you conceive to be the most attractive feature of intermodal transportation?***
   - (1) Faster service
   - (6) More dependable service
   - (7) More economical service
   - (16) Single-carrier responsibility
   - (6) General strengthening of nation's transportation network
   - (8) Distribution of traffic to the various modes according to their inherent capabilities

3. **What, in your opinion, is the best way to achieve intermodal transportation?***
   - (27) The creation of single-responsibility intermodal carriers through the common ownership principle (i.e., ownership of one mode of transportation by another)
   - (26) Publication of through routes and joint rates by separately-owned modes

4. **Why did you answer Question 3 as you did?**
   For answer to Question No. 4, see the accompanying text.

*Parenthetical figures preceding answers to Questions Nos. 2 and 3 indicate number of times answer was checked as respondent's first choice.
Note: Poll respondents did not answer all questions.

Which route to intermodal transportation?

Shippers Responding to a Railway Age poll are evenly divided between common ownership and joint rates/through routes.

Intermodal transportation, like law and order, is something that nearly everybody seems to be in favor of. But —again like law and order—there is a sharp division of opinion on how best to achieve it.

Shippers replying to Railway Age's November Traffic Poll are split almost down the middle on the question. Twenty-seven favor the right of one mode of transport to own or control other modes—i.e., common ownership, which is now prohibited by a tangle of federal laws and regulations. Twenty-six shippers are opposed to common ownership, favoring instead the path of joint rates and through routes, voluntarily entered into.

• **Pro-common-ownership.** A strong vote for common ownership comes from J. J. Kelly, manager of distribution operations for C&H Sugar, San Francisco. "I firmly believe the single-responsibility, intermodal carrier system is the only method whereby all the advantages of the system will accrue to the shipping public," says Kelly. "It seems obvious to me that the intermodal carrier can provide a complete service at far less cost both to carrier and shipper than can two or more separate carrier entities working together. The single-carrier responsibility is quite important to the shipping public for many reasons, not the least of which is responsibility for in-transit loss. Under the through-route, joint rate method, using separate carrier entities, we have a historical conflict that I feel will continue—at the shipper's expense."

• **"Responsibility is the key."** Joseph L. Miller, manager of traffic and material services for the Birdsboro Corp., Birdsboro, Pa., footnotes his own vote for common ownership with this comment: "The word responsibility is the key. With single-responsibility administration, operations and financing are simplified and made more efficient."

J. L. Bergen, traffic manager of Uncle Ben, Inc., Houston, is for common ownership because, he says, "based on past experience, a single responsibility means better service, more effort to improve, better control and clear-cut financial liability for loss."

Three reasons for his support of common ownership are given by R. W. Buck, traffic manager for Stearns & Foster Co., Cincinnati: "(1) It places responsibility with a single carrier. (2) It will give the shipper better control of his traffic. (3) It will reduce claims."

• **Dependability cited.** L. D. Olsen, general traffic manager, Kaiser Gypsum, Oakland, Calif., sees the principal benefit of intermodal service as greater dependability. He thinks common ownership is the best route to follow because "I doubt that separately-owned modes would or could effectively and efficiently implement a single intermodal program."

Norman B. Towne, general traffic manager of J. R. Simplot Co., Boise, Ida., states the case of common ownership succinctly: "Two or more companies very seldom work well in unison."

J. N. Lind, director of transportation for Armco Steel Corp., Middletown, Ohio, favors common ownership because "we need transportation systems which will not be available with a through route or joint rate basis."

Chemetron Traffic Manager R. J. Tyler, Louisville, Ky., makes a strong case for common ownership: "It is necessary that there be only one respon-

sibility for all phases of the service—i.e., liability for claims, service, rates, rate making including posting, filing, publication and policy. Otherwise everybody's business is nobody's business."

Similarly, Henry T. Rogers, director of traffic for Heublein, Inc., Hartford, Conn., points out that "single responsibility produces uniformity in all aspects of operation: tracing, scheduling, carrier interest in complaints."

Fred J. Fruechtemeyer, traffic manager, Andrew Jergens Co., Cincinnati, Ohio, believes that "effective coordination of all modes can only be accomplished by common ownership—not by tariff publications."

● **One regulatory agency?** A convinced proponent of common ownership is E. F. Lodge, Jr., director of traffic for Atlas Chemical Industries, Wilmington, Del. "Only by single responsibility can true intermodal movements be achieved. Separate modes would be chaos in negotiations," says Lodge. "It is essential," he adds, "if true intermodality is to be achieved that statutory revisions be made concomitant with technological advancements to date. In this respect, the need is for one U. S. regulatory agency with expertise in intermodal matters rather than present entrenched agencies (which fail to recognize integrated modal concepts)."

R. O. Gurrath, general traffic manager of Cutler-Hammer, Inc., Milwaukee, Wis., likes the intermodal idea because it will promote single-carrier responsibility—and the best road to intermodal service, Gurrath believes, is common ownership because, as he sees it, "The present method of through routes and joint rates is not working. More economies will be possible with single responsibility."

W. R. Ross, director of transportation and distribution for Diamond Shamrock at Cleveland, Ohio, favors the common ownership approach because "one area of responsibility and profitability is necessary to efficiently promote intermodal concepts."

Another common-ownership advocate, who asked that his name be withheld, contends that "you could never get 100% cooperation by separately-owned modes."

Henry M. Karel, director of transportation for Cleo Wrap Corp., Memphis, is a firm advocate of the right of one mode of transport to own or control other modes, asserting: "The only way the common carriers can effectively achieve economical movements of any shipments, other than volume loads, is by merging various modes of transportation to afford through service for all types of shipments."

J. Robert Morton, director of cor-

Con inued on page 68

The case for common ownership

C. B. Culpepper, general manager of the Atlanta Freight Bureau (which represents about 550 firms located in 15 different states) is in favor of common-ownership—i.e., ownership of other transport modes by one mode—and gives a well-thought-out argument in support of his position.

"It has long been my definite conclusion," says Culpepper, "that all modes of common carrier transportation would eventually be integrated and that railroads, motor carriers and air lines would and should cease to operate as specific modal agencies and that 'transportation companies' would evolve. The air lines will probably be the last agencies to consolidate and come under common ownership; but the handling of freight in the present condition of flux would be far better accomplished if one corporate and operational agency could handle shipments from broad feeder territories and make distribution into broad consuming areas under one bill of lading and with one carrier responsible for the entire movement. This would mean that railroads could acquire truck lines and (conceivably) truck lines of sufficient corporate wealth could purchase logically related railroads. The motor carriers could be used to accumulate and assemble shipments and then move such shipments for the long haul over the rail lines and then fan out for distribution via truck at the destination area. While joint routes and through rates would be of assistance, one ownership would be much more practical and efficient. I have preached this for 15 years."

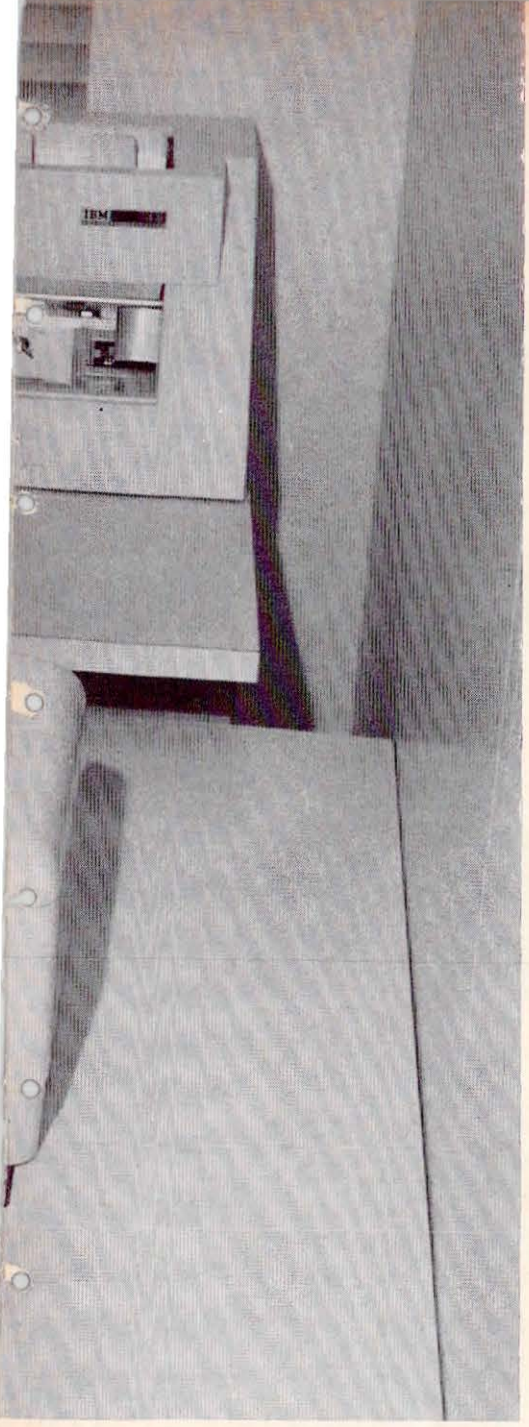
The case for joint rates/through routes

John B. Hedges, traffic manager of the Manufacturers Association of Connecticut, Inc. says: "I personally feel that the publication of through routes and joint rates by separately-owned modes is the most feasible approach to an integrated, intermodal transportation complex. I must admit that as a student of U. S. transportation history, I discovered that prior to regulation the "one big company" approach did not greatly benefit the public. We had a number of examples of railroad ownership of steamship lines, of trolley companies and of motor carriers. In very few instances were the subsidiary companies operated economically or efficiently. I do believe, however, that an intermodal transportation service organized very much as the new conglomerates are put together today, might be successful. For such an organization might be a partnership of equals. Assuming the necessary legislative changes, we might see a railroad system, one of the larger transcontinental trucking companies and an airline with an inland waterway company forming a giant corporation which might be both beneficial to the shipping public and profitable to its investors. However, until such a thing comes to pass, I feel that the only workable intermodal transportation service will be through the co-operative medium of published through routes and joint rates by the separately-owned modes."

DATA-CAPTURE in CN's new accounts-payable system begins with purchase-order preparation (above). Mechanization formerly

How CN Speeds up accounts

DEVELOPMENT OF EDP APPROACH to accounts payable was an inter-departmental project. On the design-and-installation team were (left-to-right), J. Barr and J. J. Marchand of the data-processing department, and D. G. Parsons and H. M. Steeves of the purchases and stores department.



came at the end of the buying process

payable

Canadian National runs a million-dollar-a-day accounts-payable operation—with a new and highly-mechanized approach that benefits both CN and the 27,000 suppliers who sell to the railroad.

Through use of an IBM Model 360 card-processor, CN has been able to streamline the previously-cumbersome three-way document-matching process which links railroad purchases with supplier payments.

Transfer of routine payment decision-making to a computer, CN says, has provided a greater consistency in making payments. It has reduced the costs of processing by eliminating unprocessed-invoice backlogs. It has produced new departmental control tools. And finally, it has had an effect, as CN puts it, "in further enhancing our relationship with our thousands of suppliers."

● **No small change.** This mechanization of decision-making, CN says, "represents a major departure from the conventional accounts-payable system using electronic data-processing or punched-card equipment. The typical accounts-payable system is manual up to the point where all documents have been matched, all arithmetical calculations have been verified and the decision to pay has been made."

Usually, CN points out, mechanization application is limited to the summarizing of payment data and the printing of checks and reports. Until recently, this was the system used in CN's purchases and stores department. By contrast, the new procedure begins with data captured from the purchase order prepared on an IBM 633 billing system and ends only when the payment check has been printed.

● **How the studies began.** Development of the new approach was a three-way proposition, involving accounting, data processing and purchasing. There was concern about delayed timing of material charges. There was concern about the excessive amount of paper-handling involved in manual invoice-checking routines.

CN's mechanized responsibility-accounting and budget-performance report packages had been able to provide more effective recording and tracking of costs. And the success in these areas "highlighted the fact that we could no longer allow the timeliness of expense distribution for material purchases to depend on the diligence of suppliers in submitting their invoices, and the delays inherent in our own manual invoice-validation processes."

About a year and a half of planning and development work went into the system, before implementation could begin. At the outset, CN people emphasize, "the objective was not simply to transfer manual procedures to a computer but rather to develop new concepts—on the premise that only through radical system design could the primary objectives be realized."

Those primary goals covered two points: More timely expense distribution; and the reduction of clerical effort and costs. CN found, however, that a number of other control benefits fell into place. The system produced better regional and area control over receipt-of-material notification, and this improved control over the timeliness of regional and area expense distribution. Unprocessed-invoice backlogs were eliminated. Up-to-date and accurate open-purchase dollar-commitment data became available. CN was able to improve its realization of cash discounts offered. And the system ensured payment of accounts by the due dates.

● **How the system works.** Essentially, there are three major steps to the system:

—The fully-priced and -extended purchase order is produced on an IBM 633 billing system in the purchasing office. Simultaneously, all terms and conditions of the contract essential to payment and cost-distribution are captured in punched-card form. One card is prepared for each material item and one card for the total dollar-commitment of the order. Material-item cards are sent to the appropriate area or regional comptrollers for their recording of material receipt.

—Receipt memos are submitted by consigners direct to their area or regional comptrollers. Material-item cards are then completed and submitted to the data-processing department as proof-of-delivery. Cost distributions are entered automatically into the responsibility and budget-performance report packages. Using departments no longer wait for supplier invoices to be processed before their accounts are charged.

—When suppliers' invoices are received in the purchases and stores accounting center, they are forwarded immediately to the data-processing department for preparation of a punched card for each invoice.

The three card files — representing purchase orders, receiving memos and supplier invoices — are merged every three days for a mechanized match. Valid matches produce a payment card by due-date; a reduced-dollar-commitment card; a closed-purchase order record if receipt is complete or a reduced-purchase-order record if receipt of material is only partial. Invalid matches produce a printout of exceptions, by type, for use by accounts-payable people in perfecting the match.

Payment cards are filed in the data-processing department for preparation of checks by due-date. And the check to the supplier quotes, as reference for each invoice being paid, the supplier's invoice number of date and the related purchase-order number.

● **On-line and working.** The overall system was placed in effect earlier this year for purchase of non-stock material on four of CN's five operating regions, and implementation on the fifth region was scheduled for November. Some additions remain to be phased in, but, CN concludes, "the transition is substantially complete — and was accomplished with little difficulty." ■

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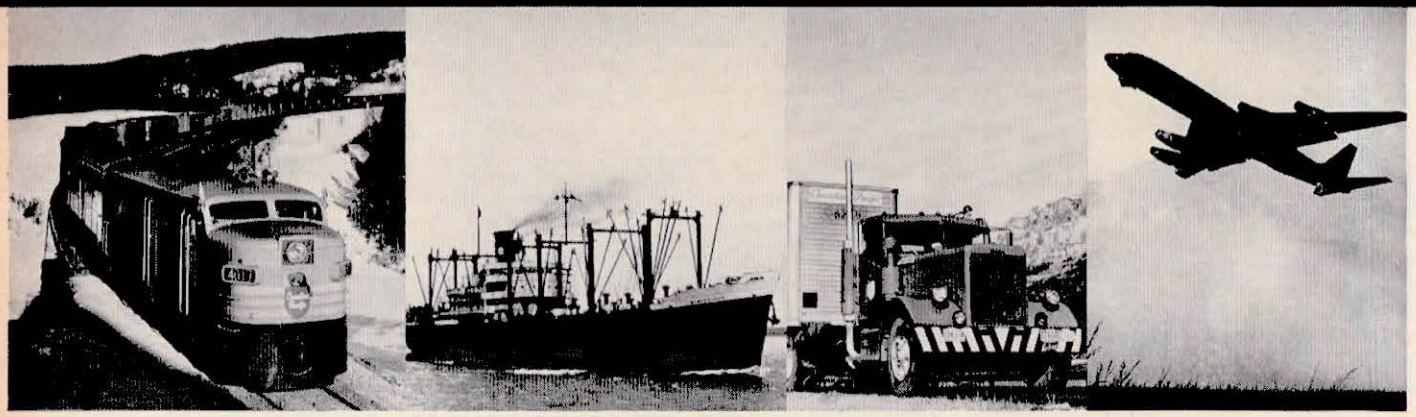

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Circle 17 on coupon page 62

LETTERS

Required reading

St. Louis, Mo.

To the Editor:

Gus Welty's Roanoke address on management-labor relations (RA, Sept. 30, p. 49), is a characteristically fine paper—complete, concise, convincing. It should be made required reading by Congress and all those having public responsibilities in labor-management problems.

John W. Barriger
President
Missouri-Kansas-Texas

SP motive power

Chicago, Ill.

To the Editor:

I wish to correct a statement in the "You Ought to Know" section of the Oct. 21, 1968, issue of Railway Age, stating that only one railroad (I assume you meant the Union Pacific) had purchased 5,000-plus horsepower diesel-electric units.

Referring to the *Southern Pacific Motive Power Annual — 1967-1968*, published by the Chatham Publishing Company, Burlingame, Calif., I note that, as of July 1, 1967, the Southern Pacific owned three EMD DD-35 5,000-hp units and three G.E. U-50B 5,000-hp units. So far as I know, these units are still in use.

The Southern Pacific also has not been afraid to experiment with 4,000-hp diesel-hydraulic units, having owned, as of the same date, three Alcos and 21 Krauss-Maffeis in that category. The former are still in use, but the latter, many of which were obtained through the Rio Grande, are gradually being phased out.

Carl J. Bachmann

Wildcat strikes

Chicago, Ill.

To the Editor:

Your issue of Oct. 28 had on page 90 the most encouraging article, entitled "A deathblow to wildcat strikes on railroads?" Our hats are off to G. E. Kalbfleisch, chief judge of U.S. District Court for the Northern District of Ohio, Eastern Division, who had the courage to say what has long been needed. We think this should have been put on your cover so all would be certain to read it. We applaud your views, too. Keep up the good work.

David M. Wood
Traffic Manager
Snyder Molasses Co.

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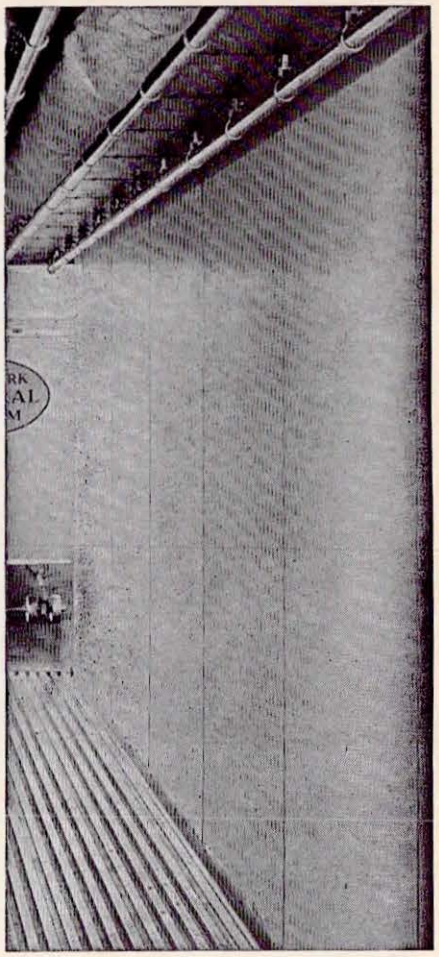

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Circle 34 on coupon page 62

MAN BEHIND THE CAMERA is Frisco's director of supervisory training, Verne C. White. Trainee makes his pitch to "customer" in one room; in another, other members of class wait on TV monitors, take notes, and prepare to critique the presentation. Video-tape permits instant replay.

FOR FRISCO SALESMEN:

Training by instant replay

Long a pace setter in sales training, Frisco has now introduced television to its program.

Frisco's freight salesmen may never be nominated for an "Emmy"—but their television debut should make them better salesmen.

Since 1961, Frisco has been holding intensive annual series of short-courses in sales training, and each year the techniques get more sophisticated. Several years ago, Verne C. White, director-supervisory training, introduced role-playing with playback by conventional tape-recorder. This year, he's taken the instruction a significant step farther—using closed-circuit television and a video-tape recorder for instant replay.

Classes are small—seven men in each of a dozen classes in the '68 series which ended last week—and maximum discussion is encouraged, as always.

One day of each two-day seminar is a combination of lecture, film and tape presentations to the salesmen. Its windup is a state-of-the-railroad outline by General Sales Manager H. H. Knuth.

● **Preparing for TV.** The other day is television day—set up the night before, as Frisco's salesmen study sales problems set up by the training staff.

The theme of the '68 meetings is on the critical point of a sales call—the closing. As the sales manual puts it, "Is your prospect really sold—or merely told?"

Four sales problems have been prepared. In each, it is assumed that the sales representative has made a prior call to explore the situation. He has developed the information required—equipment, rates, schedules, shipper savings and so forth. He is also told something about the "prospect" he's calling on—in one case, for instance, the traffic manager is new to the job, doesn't know much about railroads and is known as an argumentative sort. In another situation, the customer might be an old hand at traffic management, a man experienced in choosing among competitive proposals.

Frisco's sales "students" talk over the next day's problem—and then, next day, they go before the camera.

A member of Knuth's staff acts as the customer—and he can be a tough man to sell, for a salesman whose presentation is less than complete, or unclear. He throws an occasional curve—suggesting, for example, that something the salesman says is incorrect, in order to see how the sales rep goes about straightening out the record.

● **Watch and listen.** While all this is going on, White is manning the camera, recording the scene and at the same time feeding it to a television monitor in a nearby room where the other salesmen in the class are watching, listening and making notes on the presentation.

Emphasis throughout is on the completeness of the sales proposal, on the shipper-benefit angles, and on the closing—the matter of asking for the business.

Freight salesmen, Frisco's and others, often point out that, unlike encyclopedia salesmen, they have no "contract" that can be pushed across the desk for a final and binding signature. So, a major part of the effort in this year's class is on the closing, and on the techniques which may be employed.

After each salesman makes his presentation, he joins the group for a playback, and for open discussion of his performance.

In the set-piece part of the program, there are discussions of self appraisal, of developing better ideas about selling, of knowing customers and building good will, and of improving the art of communicating.

● **Emphasis on change.** There is also a study of traffic and physical distribution management—a study which stresses the changes taking place in this whole area of management.

White will make the point, for example, that some traffic routing decisions may be based "on unique and unknown factors which make it very difficult for the freight transportation salesman to secure a favorable buying decision." A staff engineer or an operations manager, he points out, may be calling the shots or at least doing the basic research which leads to transportation decision-making. And it is thus up to the railroad salesman to be armed with the information to answer questions which may be highly technical in nature.

In past classes, White recalls, "we discussed the total transportation concept and we inferred that rail transportation is only a part of the total problem of the shipper. The manufacturer is concerned with many things other than rail transportation—but they're things which relate directly or indirectly to transportation. We've also talked about the importance of the salesman's being a problem-solver. The salesman must be able to analyze the prospect's operating problems that relate to transportation, and interpret Frisco services in terms of benefits to the shipper. These 'benefits' have to be seen by the shipper as solutions to his problems, or they are not benefits."

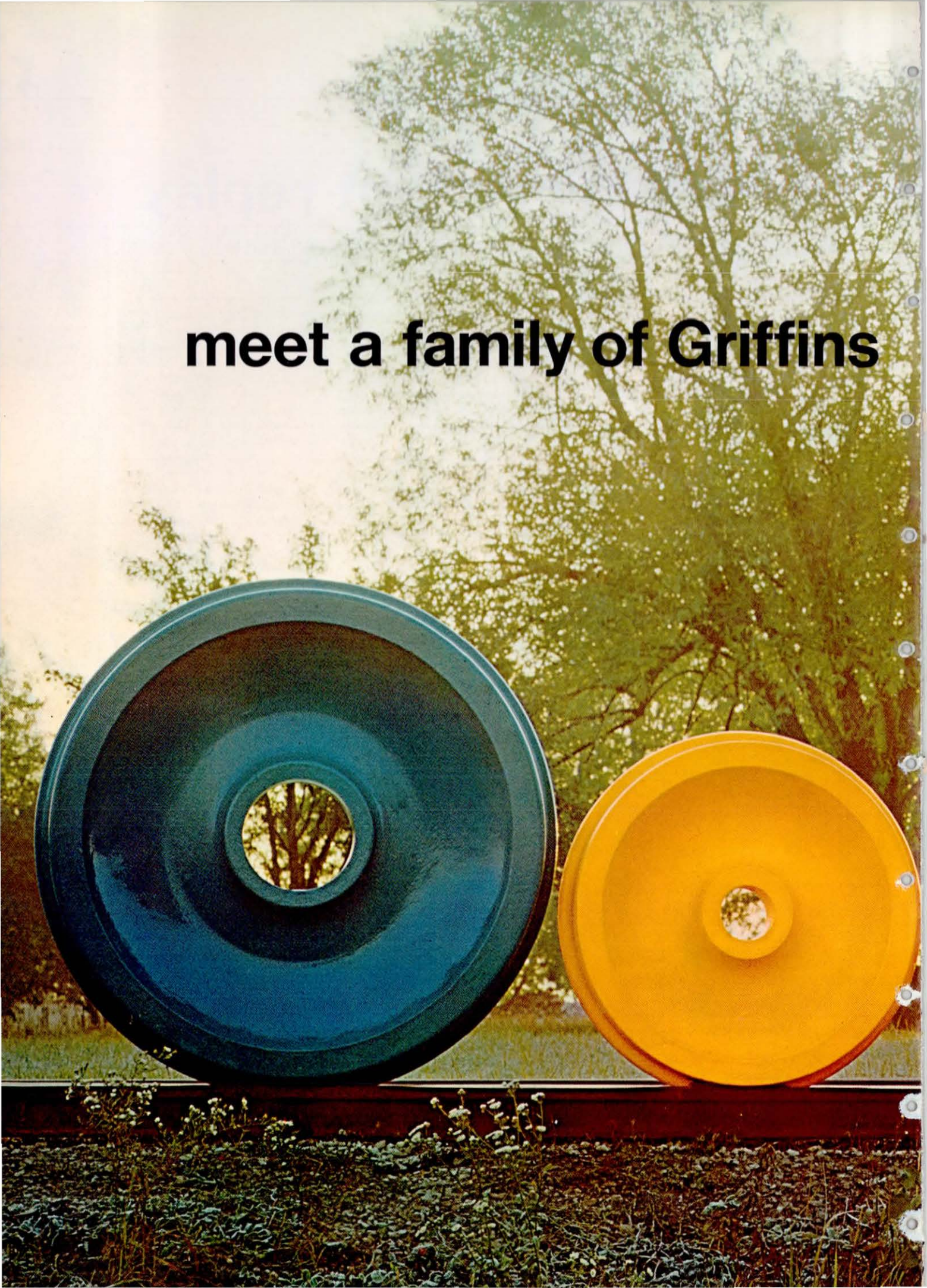
To sell benefits, White points out, "the salesman must know the distribution problems of the shipper. To know these problems—and not just the shipping problems—the salesman has to know the shipper's method of operation, how he performs his functions, how these functions relate to the functions of others within the shipper's company, and so forth. Also, the transportation salesman must understand how the shipper views his own problems and how his views relate to the transportation of his products."

Frisco's training director emphasizes that the goal in physical distribution management "is to maintain an optimum inventory at minimum cost. One way to shorten this cost is to shorten the period of ownership by reducing the transit time between seller and buyer. Another way is to shorten the order cycle and serve customers from fewer warehouses at greater distances so that the full product line does not have to be carried at as many locations.

"Having too much inventory is bad, but having too little is usually worse. . . .

"The freight transportation salesman needs to understand physical distribution management in order to converse intelligently with those who participate in these various activities. He should understand the relationships between transportation, warehousing, inventory, production and customer service. He should be aware of the role the computer plays in a company, as well as the computer's use in measurement and control of these activities.

"And above all, the salesman must recognize that open-mindedness to innovation and change is critical." ■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Frank Malone

WATCHING WASHINGTON

WATCH THOSE CARNETS— This week in Geneva, Switzerland, a DOT representative will tell a United Nations group the USA is big on carnets. What carnets are, what their DOT acceptance means to rails, are worth pondering.

THEY SPEED EUROPE'S TRAFFIC— Carnets are documents that cut border delays. They come from a European customs convention, Transport International Routier, drafted to erase repeated unloading for inspection, duty payment at each point, and bonding for sealed moves. Carnets are one-shot papers covering all angles, and copies simply are lifted at each checkplace. Inspection follows delivery. Underwritten by a responsible organization, they tell intermediate customs the cargo can pass, and they guarantee payments.

NOW, RAILS ARE OUT— What does all that do for U.S. rails? Nothing, now. That's the whole point. Carnets are truck-postured. Another wording for TIR is International *Road* Transport. And Europe's carnet clearinghouse is the International *Road* Transport Union. Steamship lines that prodded the U.S. to join up were deep in road operations on both sides. The convention calls for an issuing agent in each country, and DOT chose the mostly-truck-membered Equipment Interchange Association. EIA will start issuing forms within 90 days of formal U.S. accession (authorized by P.L. 90-635 signed by President Johnson Oct. 24). But rail men really can't cry discrimination. A DOT official says, "No one from railroads pushed it."

THEY COULD BE SALES TOOLS— Why should rails worry, anyway? The United States doesn't have border problems. And bonded carriers are employed. The thing is, the Government got into carnets to protect U.S. interests abroad, to help foreign markets get American goods faster, to save time and money for American businessmen. DOT admits the carnet concept isn't widespread here. But it says U.S. manufacturers will discover it soon, and then they'll look for the carnet-equipped carrier. This, plus a built-in predisposal to road-haul from ports, will give trucks a new competitive edge. European railroads learned that lesson and are working on special rail carnets.

RAILS CAN BE IN— As the DOT official adds, carnets must be issued to any legitimate carrier: "We named EIA only on the basis that they'd take care of parties other than their own members." Despite a pre-determined truckline advantage, rails can get a piece of the action.

No more big deficits for the British Railways?

That could be major result of this year's new Transport Act.

By JOHN LEVETT
International Editor

If Britain's new Transport Act achieves its major aims, 1968 should prove to have been the last of the big-deficit years for British Railways.

Under the Act, which came into operation last Jan. 1, the bulk of BR's huge capital debt is to be written off —and there should be no further need for the state's annual deficit grant.

Other provisions of the Act include:

1) Establishment of a National Freight Corporation (NFC) independent of BR. This will take over responsibility for BR's so-called freightliner and freight sundries services.

2) Creation of local Passenger Transport Authorities (PTAs).

3) Grants for loss-making but "socially necessary" passenger services.

4) "Infrastructure grants" for Ministry-approved facility improvements.

5) Power for railway workshops to manufacture and repair for outside customers.

• **Shedding the millstone.** The chronic deficit has been a millstone around BR's neck for many years. The decision to jettison this by writing off all but $720,000,000 of the $3,748,000,000 capital debt, and providing specific grants, raised a sigh of relief at the system's London headquarters.

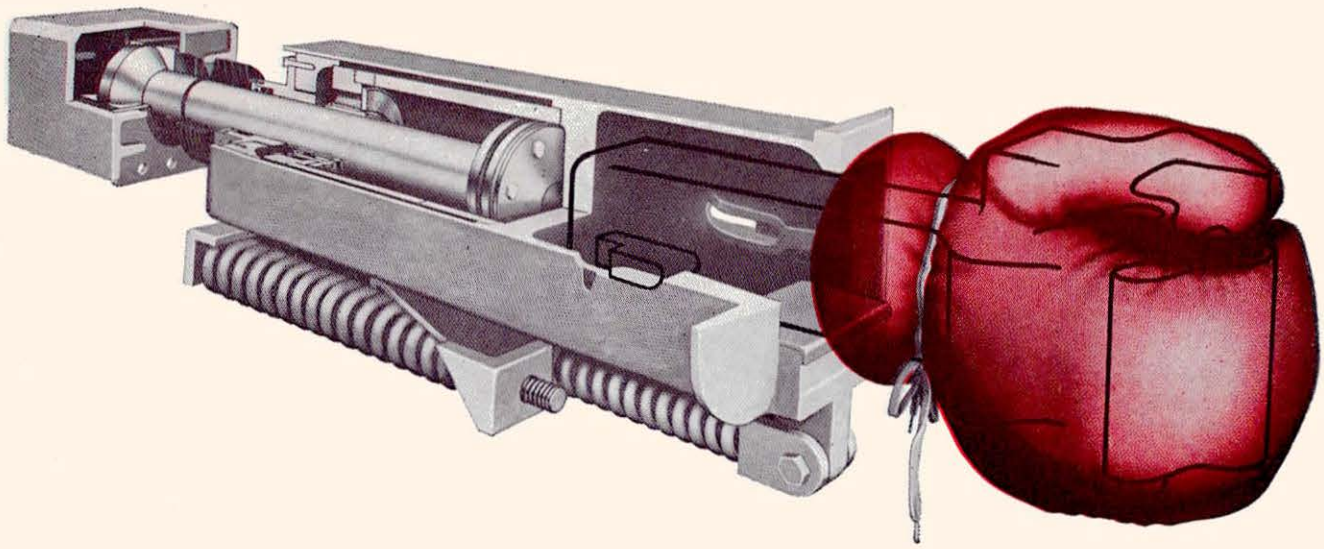
BR's over-all deficit in 1967 was $313,200,000. This year's is expected to be even bigger, in spite of development of some high-revenue services, freightliner among them.

Grants for "socially necessary" services will probably be used to sustain a number of commuter and cross-country routes. These have always boosted the deficit, but political pressure has kept them in operation.

During the next few years these grants will probably cost the British taxpayer around $96,000,000.

Even more important in light of BR development plans, and schemes for new city transit systems, may be the

(*Continued on page 74*)



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What's so super about our Super Cushion® couplers?

They turn BUMPS into bumps.

Not long ago a big "bump" when freight cars were coupled could mean big trouble for fragile freight. Not so now, though, with our Super Cushion underframe cars — another money-saving, better-service innovation by Southern Railway. Today, thanks to these hydraulic-cushioning devices, you'll find delicate, expensive electronic equipment, breakable bottled goods, rolls of newsprint . . . anything that needs special care . . . traveling in our Super Cushion service. And shippers realize im-

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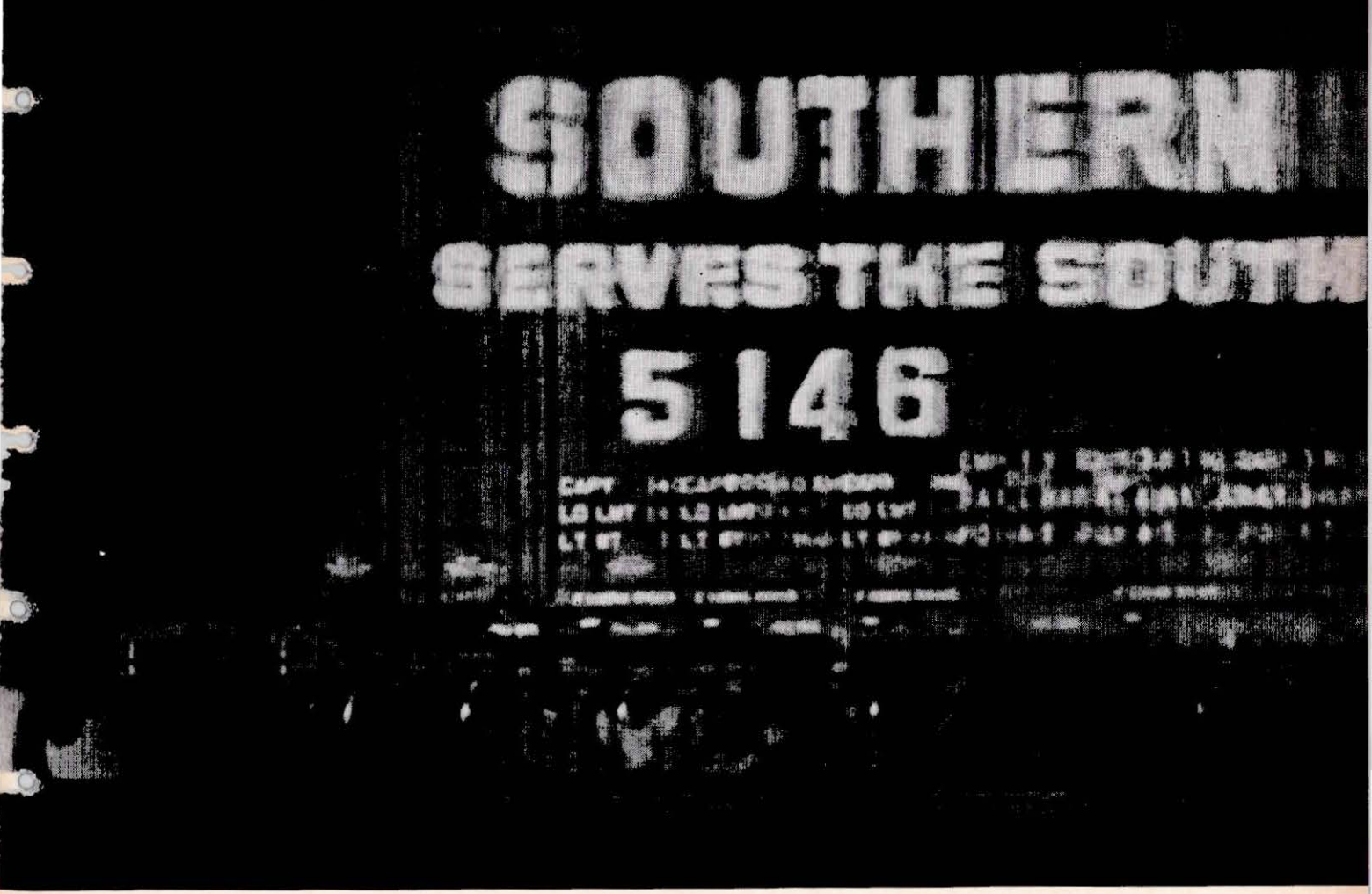

portant savings from lowered costs of packaging, crating and bracing.

Super Cushion service is just one of many Southern Railway innovations. Some you can see, some are hidden behind the scenes. Some have resulted in basic improvements in rolling stock, some have resulted in entirely new, precedent-breaking ways to do things faster and better. All add up to good news for shippers and consumers alike, for they help squeeze the waste out of distribution.

As we see it, this war on waste in distribution goes far beyond the mere mechanics of transportation. Today, profit-building, money-saving answers to your problems and costs must be sought out and solved *wherever they may lie in the overall distribution complex.* This is our job—and we have what it takes to do it well. Put us to work squeezing the waste out of *your* distribution. The man to write or call is W. V. Burke, Vice President—Sales, Southern Railway System, P.O. Box 1808, Washington, D.C. 20013; telephone 202/628-4460.

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Circle 22 on coupon page 62

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In operating The National Railroad Trailer Pool, REALCO concentrates on *Service*.

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J. E. Eisemann
Santa Fe

PEOPLE IN THE NEWS

CANADIAN NATIONAL.—H. H. Weitzel, supervisor, car, Prairie Region, appointed mechanical officer car (freight), system, Montreal, succeeding **F. H. Taylor,** resigned.

N. A. MacDonald, superintendent of equipment, line points, Assiniboine Area, appointed mechanical officer, motive power, Prairie Region, with headquarters as before at Winnipeg, Man. **W. A. Gibb,** work study officer, regional equipment department, Winnipeg, appointed planning officer, to direct activities of the work study, engineering and production planning groups within the department.

R. N. Blaikie, regional supervisor, production, planning and control, named assistant superintendent, equipment, Assiniboine Area, Winnipeg.

CANADIAN PACIFIC.—D. S. Collins appointed transportation assistant, and **J. A. Forbes** named assistant to chief of transportation, Montreal.

Edgard Martin appointed assistant manager—freight rates, system, Montreal, succeeding **W. Green,** who is retiring Nov. 30, after over 50 years of service.

CHESAPEAKE & OHIO—BALTIMORE & OHIO.—H. V. Harris, road foreman of engines—assistant trainmaster, C&O, Clifton Forge, Va., promoted to trainmaster, B&O, Connellsville Pa., succeeding **J. W. Bartock,** named terminal trainmaster, B&O, Lorain, Ohio, to replace **R. W. Darner.**

G. B. Jones appointed manager, mail, express and baggage transportation, Baltimore, succeeding **L. S. Eichner,** retired.

CHICAGO & NORTH WESTERN.—R. H. Byerly, trainmaster, Chicago Passenger Terminal, Chicago, transferred to Back Hills division, Rapid City, S.D., to succeed **K. D. Shreffler,** who becomes trainmaster, Galena division, West Chicago, Ill. **C. F. Biron** replaces Mr. Byerly. **W. T. Lundell** named trainmaster, Wisconsin division, Milwaukee.

DETROIT, TOLEDO & IRONTON—ANN ARBOR.—Dan J. Green appointed Western Canadian sales manager, Vancouver, B.C.

Donald G. West appointed assistant to president, Dearborn, Mich., and will be in charge of major industrial location and industrial location policy and negotiation, and special projects. **Robert M. Stevens** named general industrial agent, Traffic Department.

GRAND TRUNK WESTERN.—Richard Z. Gooding, freight sales representative Lansing, Mich., appointed district sales manager, Battle Creek, Mich. succeeding **Edward L. Reynolds,** retired.

Gerald B. Rupel, work study analyst, Battle Creek, Mich., appointed superintendent, Port Huron Car Shops, succeeding **H. D. Gibson,** named manager TOFC, containerization and merchandising (RA, Nov. 11, p. 32).

GREAT NORTHERN.—A. J. Hoehn, sales manager, special products, St. Paul, named to the newly created position of assistant director of sales, New York.

ILLINOIS CENTRAL.—James E. Gardner, regional sales manager, St. Louis, appointed manager freight sales, Chicago.

KANSAS CITY SOUTHERN.—Irvine O. Hockaday, Jr. appointed assistant general counsel, Kansas City, Mo. **Richard P. Bruening** and **Phillip S. Brown** named general attorneys, Kansas City.

Stanley W. Pearson appointed general freight agent (divisions), Kansas City, succeeding **John T. Powell,** retired.

LOUISVILLE & NASHVILLE.— Col. Philip L. Hooper appointed assistant to the pres-

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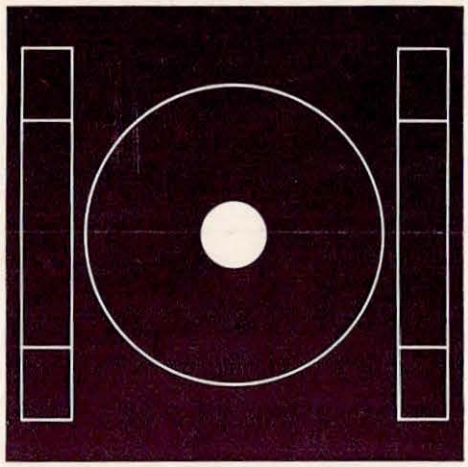

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ident to succeed **Louis J. Allen,** who retires Jan. 1, 1969. Col. Hopper, who retired from the US. Army Aug. 31 after 32 years of service, is presently consultant for **Sandia Laboratories,** Albuquerque, N.M.

MAINE CENTRAL.—Miss Jean E. Gilpatrick appointed regional sales and service manager. She was formerly revision and divisions clerk, office of auditor of revenue, Portland, Me.

MILWAUKEE.—Virgil W. Merritt, assistant director of labor relations, named director of labor relations, to succeed **Lawrence W. Harrington,** elected vice president-labor relations, (RA, Nov. 11, p. 37). Mr. Merritt's successor is **Edward R. Koudelka,** labor relations officer. **Larry E. Long,** assistant to division superintendent, Milwaukee, named employment and training officer, Chicago.

NORFOLK SOUTHERN.—Harvey R. Liverman, system analyst, promoted to director of data processing, Raleigh, N.C., succeeding **J. L. Pickard.**

PENN CENTRAL.—Recent appointments: **Cornelius A. Dorsey,** assistant vice president—investments; **R. W. Loder,** assistant vice president—corporate; **T. A. Verlander, Jr.,** director—corporate financing; **J. J. Supon,** manager—real estate, and **W. R. Dunn,** manager—real estate-relocation, Philadelphia.

Appointments on the staff of **V. J. Floyd,** director—industrial development: **R. G. Sim,** manager—industrial development, Baltimore, Md.; and **E. C. Molengraft, Jr.,** industrial development supervisor, office of director—industrial development, Philadelphia.

Appointments on the staff of **A. Paul Funkhouser,** vice president—coal and ore traffic: **E. H. Furst,** coal sales manager, Philadelphia; and **H. L. Shepherd,** coal sales manager, Detroit.

Appointments in the organization of **J. H. Shaffer,** treasurer: **B. F. Hinkle,** assistant treasurer—banking; **W. J. Pohlmann, R. E. Semerad,** and **J. R. Dunn,** assistant treasurers; **R. H. Strahan,** manager—collections; **M. R. Darnes,** manager—internal control; **W. W. Riley,** manager—cash statistics; **P. F. Nowlan,** manager—cash accounts; **E. J. Carey,** manager—coupon records and subsidiary and cash accounts; **F. J. Ward,** manager—credit; and **J. V. Pollack,** manager—bond transfers.

RAILROAD RETIREMENT BOARD.— Effective in January 1969, **John J. Finnerty,** regional director, New York, named regional director, Cleveland, succeeding **Frank J. Shea,** who retires Dec. 31. Mr. Finnerty's successor is **Sidney Weinstein,** deputy director, New York, who in turn is replaced by **Robert A. Russell,** district manager, Baltimore. **Oscar A. Gaskill, Jr.,** regional director, Atlanta, becomes regional director, Dallas, to succeed **Raymond, W. Lusk,** who retires Dec. 31. **Dale W. Brown,** regional director, San Francisco, named to succeed Mr. Gaskill. Mr. Brown's successor is **Merrit A. Robson,** chief of investigation and placement, bureau of unemployment and sickness insurance, Chicago.

SANTA FE.— F. J. Steinberger, vice president and general purchasing agent, retires Dec. 31 after more than 48 years of service. **J. E. Eisemann,** chief engineer, western lines, Amarillo, Tex., appointed assistant general purchasing agent, Chicago, effective Dec. 1, and general purchasing agent, Jan. 1.

F. L. Elterman, assistant general manager, Eastern District, Topeka, transferred to the Los Angeles Terminal and Valley divisions, Los Angeles, replacing **E. R. Robertson,** transferred (RA, Nov. 11, p. 37).

UNION PACIFIC.—James H. Clark, supervisor—COIN systems, appointed assistant to vice president—traffic, Omaha, Neb. **Fred B. Cox** named assistant to traffic manager, Portland, Ore., succeeding **Stanley A. Fredeen,** who retired Oct. 31 after 49 years of service.

R. K. Austin appointed assistant to general auditor, Omaha.

DIVIDENDS DECLARED

CLEVELAND & PITTSBURGH.—7% Guaranteed, 87½¢, quarterly; 4% Special Guaranteed, 50¢, quarterly, both payable Dec. 2 to holders of record Nov. 8.

DENVER & RIO GRANDE WESTERN.—27½¢, quarterly, payable Dec. 16 to holders of record Dec. 6.

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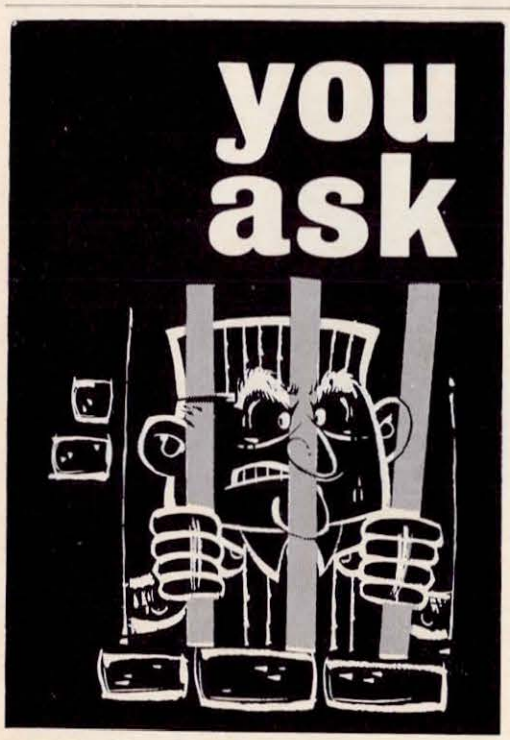

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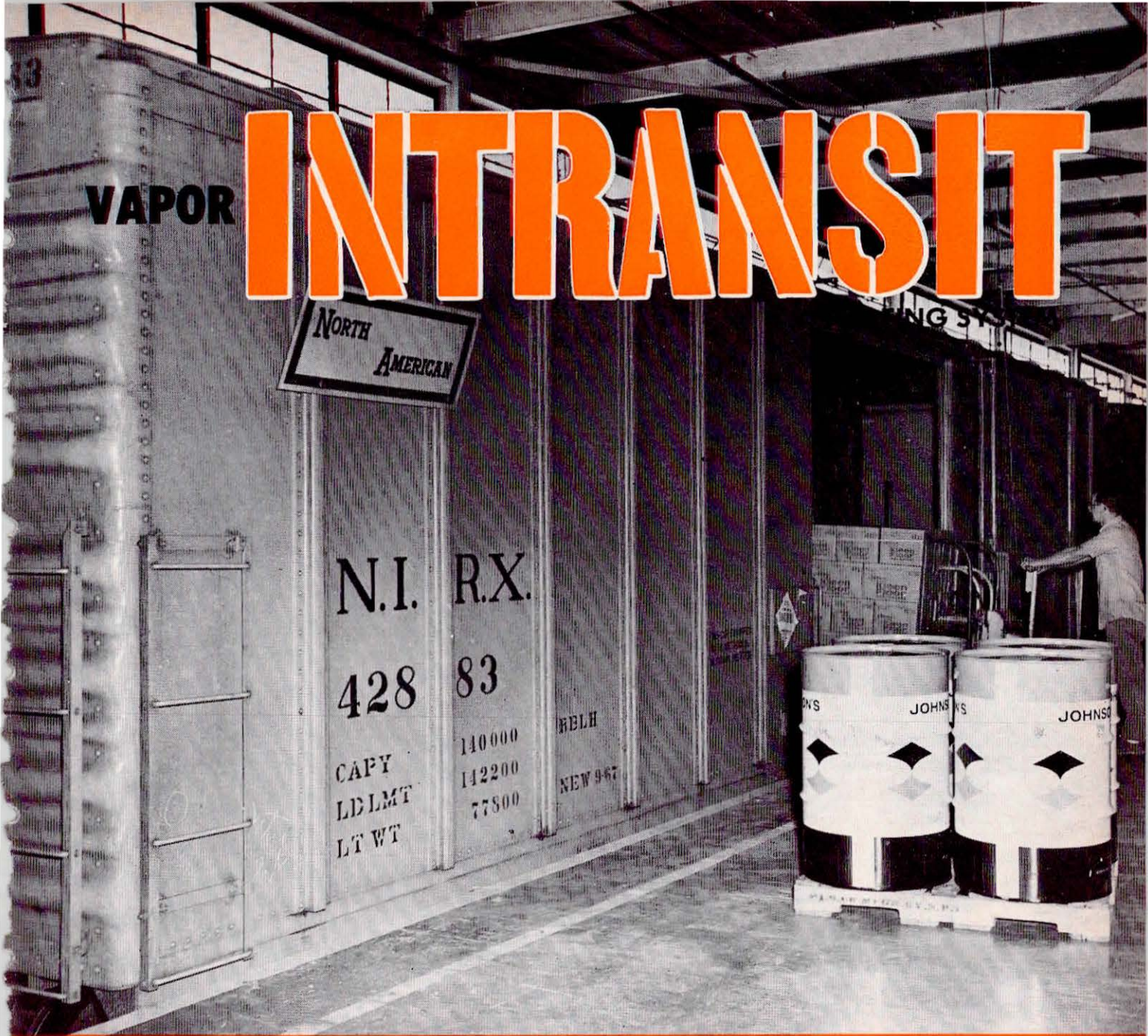

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Shippers are specifying Vapor Intransit Heating equipped cars because this assures them that their ladings will arrive in the same perfect condition they were in when shipped.

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SUPPLY TRADE

Samuel W. Madeira has been appointed assistant vice president, eastern area, **St. Louis Car Division, General Steel Industries,** at Philadelphia. He was formerly associated with the Budd Company.

Henry G. Horhorst appointed director of railroad sales, **ACF Industries,** St. Charles, Mo. Mr. Horhorst was formerly director of operations planning, **Penn Central,** New York.

Lawrence E. Walkley, president, **Westinghouse Air Brake Co.,** Pittsburgh, Pa., elected to the additional post of executive vice president, **American-Standard.** WABCO operates as a subsidiary of American-Standard.

Harold W. Hoffman has been named general manager—advertising, **United States Steel Corp.,** Pittsburgh, Pa., replacing **John Veckley,** who retired Nov. 1, after a career spanning 42 years in commercial, magazine and industrial advertising. Mr. Hoffman moves up from assistant director of advertising.

T. Richard Stahler has been appointed manager of public relations and advertising for **AMSTED Industries,** Chicago. Mr. Stahler was formerly staff assistant, public relations and advertising.

Dr. Glen L. Neidhardt has been appointed technological consultant to J. H. Goodman, vice president and director of management information systems, **General American Transportation Corp.,** Chicago. Dr. Neidhardt had been technological assistant, GATX corporate planning office.

Samuel W. Madeira
St. Louis Car

Henry G. Horhorst
ACF

L. E. Walkley
WABCO

Harold W. Hoffman
U.S. Steel

Robert E. Conlee, manager, application engineering division, **Aluminum Co. of America,** Pittsburgh, has been appointed manager of transportation industry sales, succeeding **George E. Herrman,** named general sales manager (transportation, defense, machinery and equipment sales). **Cliff Sands,** packaging industry sales manager named general sales manager (packaging, consumer durables and building product sales).

Harold P. Cahill has been named manager of public works, **Swindell-Dressler Co.,** Pittsburgh-based division of **Pullman Incorporated.** Mr. Cahill holds a Masters degree in urban development from Princeton University.

INDUSTRIAL TRAFFIC

James F. Haley, vice president and manager, traffic and transportation department, **Koppers Co.,** has been appointed vice president of transportation and traffic services, Pittsburgh, Pa. **Alfred E. Jones,** vice president and manager of procurement, has been named manager of the recently formed purchasing and traffic department.

Harvey O. Featherly, assistant manager, National Transportation Division, **Hiram-Walker Incorporated,** has been appointed manager, Transportation Division, with headquarters as before at Chicago.

Edward L. Mark has been appointed general traffic manager, Retail Footwear Group, **Shoe Corp. of America,** Columbus, Ohio, succeeding **Barnard Milcoff,** retired. Mr. Mark was formerly director of traffic of HCA Food Corp., Baltimore, Md.

Jack E. Henderson, assistant vice president—transportation, **Consolidation Coal Co.,** Pittsburgh, Pa., has been named vice president—transportation.

Gerald E. Beardsley, director of distribution, Corn Products Co., Englewood Cliffs, N.J., has been named director of distribution and transportation. **John L. Clement,** general transportation manager, named general manager, distribution and transportation, reporting to Mr. Beardsley.

Alan F. Sabol has been appointed manager of operational studies, Materials Management Division, **International Minerals & Chemical Corp.,** Skokie, Ill. Mr. Sabol formerly held traffic positions with Bethlehem Steel and the Pennsylvania (now Penn Central).

T. C. Norwood, distribution service manager, Canadian Canners Limited, has been elected first vice president, **Canadian Association of Physical Distribution Management,** succeeding **F. M. Prechtel,** who has assumed new responsibilities in New York. **A. J. Gillies,** manager customer research, **Canadian National,** has been elected second vice president, CAPDM, and will retain the office of treasurer.

Some guys get all the breaks.

Not us. Our cushioned merchandise cars ride soft enough for any lading. Even future omelets. Welded rails help. So do special racks and partitions that snub movement. What's more, almost half our fleet is "special purpose." Designed for your specific commodity. Flip-top models. Wide-door models. You name it.

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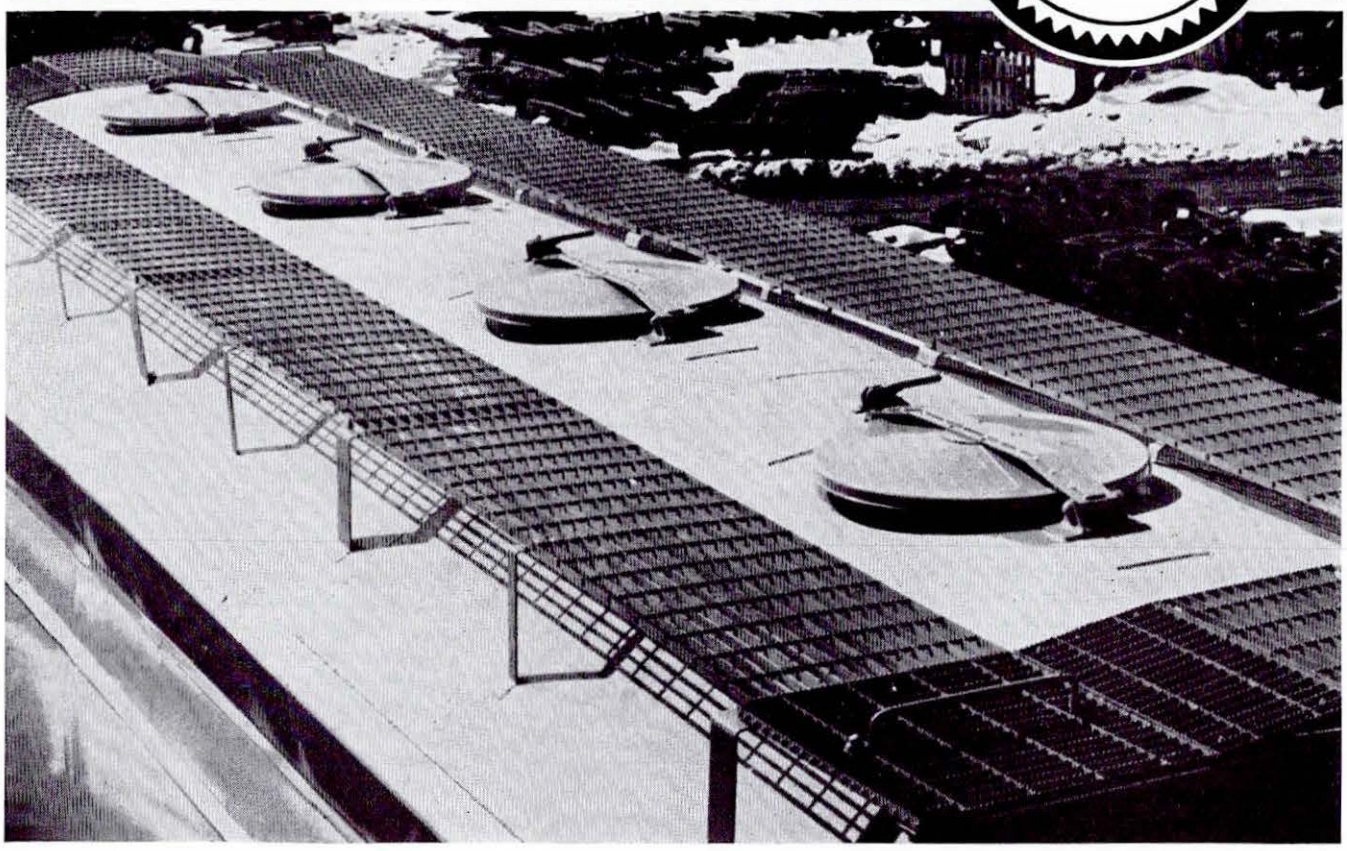

Lightness . . . strength . . . durability — these features prompted Mo-Pac to specify Molded Fiber Glass Hatch Covers for 100 new silica hopper cars, ordered from ACF Industries.

Molded Fiber Glass Hatch Covers weigh only 22 pounds, one-third the weight of steel! They're strong because they're molded in matched metal dies, assuring uniformity and no thin spots.

They're durable because molded fiber glass is impervious to rust, corrosion or dents, and have proved themselves in slam tests which far exceed normal usage.

Why not investigate this and other MFG products for the transportation industry? Write Molded Fiber Glass Products Company, 4671 Benefit Ave., Ashtabula, Ohio 44004, (216) 993-2171,
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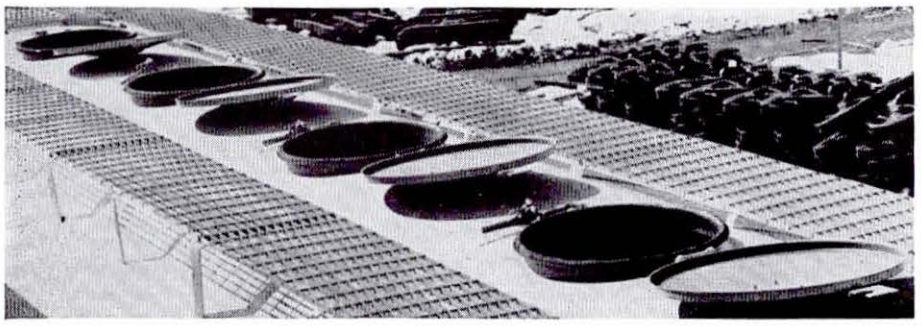

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How can steels that aren't used in this locomotive make it more efficient?

The efficiency story is in the cars behind it. They use USS COR-TEN High-Strength Low-Alloy Steel—up to 40% stronger than carbon steel—which permits construction with thinner, lighter plates to increase payload by several tons per car. Or, by using the same gages as with carbon steel, you can provide greatly increased strength, durability and service life with the same payload. These are the reasons why this special steel has been used in more than 400,000 freight cars.

You would probably find other members of the USS Family of High-Strength Low-Alloy Steels in certain car parts, each contributing

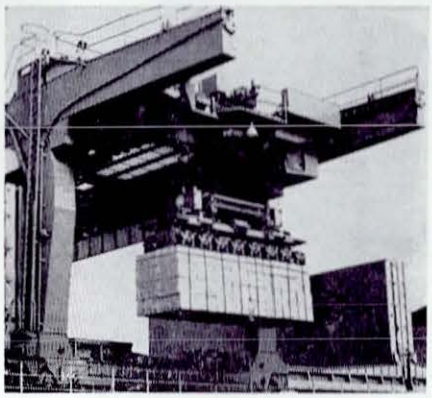
to efficient performance. USS TRI-TEN Steel has high strength and toughness, good fatigue resistance, and good welding and fabrication characteristics—all at relatively low cost. USS EX-TEN Steel is the biggest bargain of all in carbuilding material. Its strength-to-cost ratio allows designers to trim both weight and cost through the use of thinner sections.

Any of these special steels will increase the durability and efficiency of the next freight cars you buy or lease. For more information, write United States Steel, P.O. Box 86 (USS 5261), Pittsburgh, Pennsylvania 15230.

USS, COR-TEN, TRI-TEN, and EX-TEN are registered trademarks.

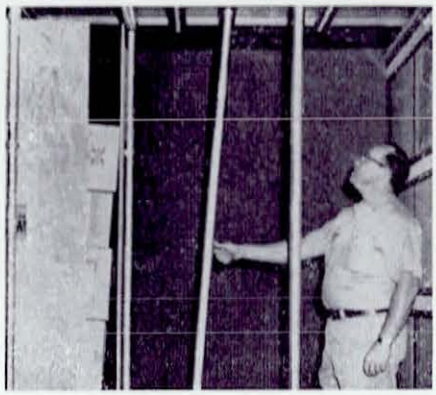
USS United States Steel

NEW PRODUCTS REPORT



Bale clamps (RA-1)

The clamp on this patented hoisting unit can lift a number of bales of any size by latching on to steel band hoop on top of each row of eight bales. Each head on the bale clamp unit consists of two lifting claws incorporating a magnet in the middle which will raise the strapping hoop to allow for claws to slip underneath and clamp together. The clamp can lift up to 64 bales with a total load of 14 tons. *Munck Cargo Handling Systems, Inc.*

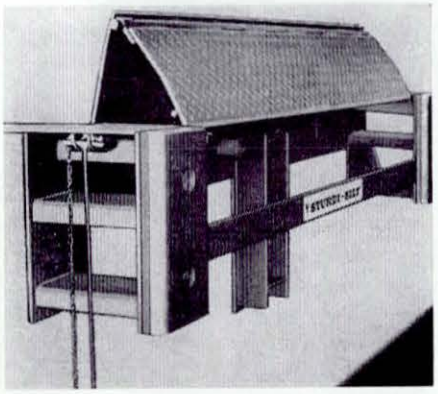


Captured bracing rods (RA-2)

This captured-rod bracing device has been designed to remain in a trailer, permanently attached yet moveable to any position where there is track in the ceiling and opposing track in the floor. By simply lifting the bottom portion of the rod and twisting the pin into its slanted slot, the rod is suspended free of the floor track and floats in the ceiling track, where it is captured. The rods protect rear and side doors. *Load-Holder, Inc.*

Dock board (RA-3)

With the Dock Skate, a three-wheel, in-line, tilt dolly, one man, according to the manufacturer, can handle dock boards weighing as much as 400 lb, and unwieldy boards rolled on edge from job to job with far less effort and in less time than ever possible before. The skate clamps quickly and firmly to the end of a dock board. Wheels are fixed-position type, and rubber tires add safety and protect floors. *Copperloy Corp.*



Mechanical dockboard (RA-4)

The Simplex mechanical dockboard has no electrical or hydraulic components. It is bolted or welded directly to existing shipping platforms and can be installed in 2 hr with ordinary labor and tools. Deck capacity is 15,000 lb. The hinged deck (72 in. wide) and lip (15 in. deep) are manually positioned with a spring-assisted lever. When truck pulls away, deck and lip drop for "parking" flush with shipping platform surface. The board fits all existing truck docks. *Unarco Industries.*

Coil tie-down (RA-5)

Specially designed strap assemblies in the Cargo Control System are "successfully holding metal coils on flatbed trailers under adverse conditions." Through "elastic restraint," assemblies expand, absorb shock, and contract, maintaining constant grip on coils even under extreme "G" forces. Tensioned by a positive locking ratchet buckle and attached to trailer by steel end fittings, the webbing controls normal movement. *Aeroquip.*

RAILWAY AGE
THE TRANSPORTATION WEEKLY

30 Church Street, N.Y., N.Y. 10007 READERS' SERVICE (Att. J. Lindstrom)

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PLEASE SEND INFORATION ABOUT PRODUCTS DESCRIBED ON PAGE 62 MARKED: RA-1 RA-2 RA-3 RA-4 RA-5

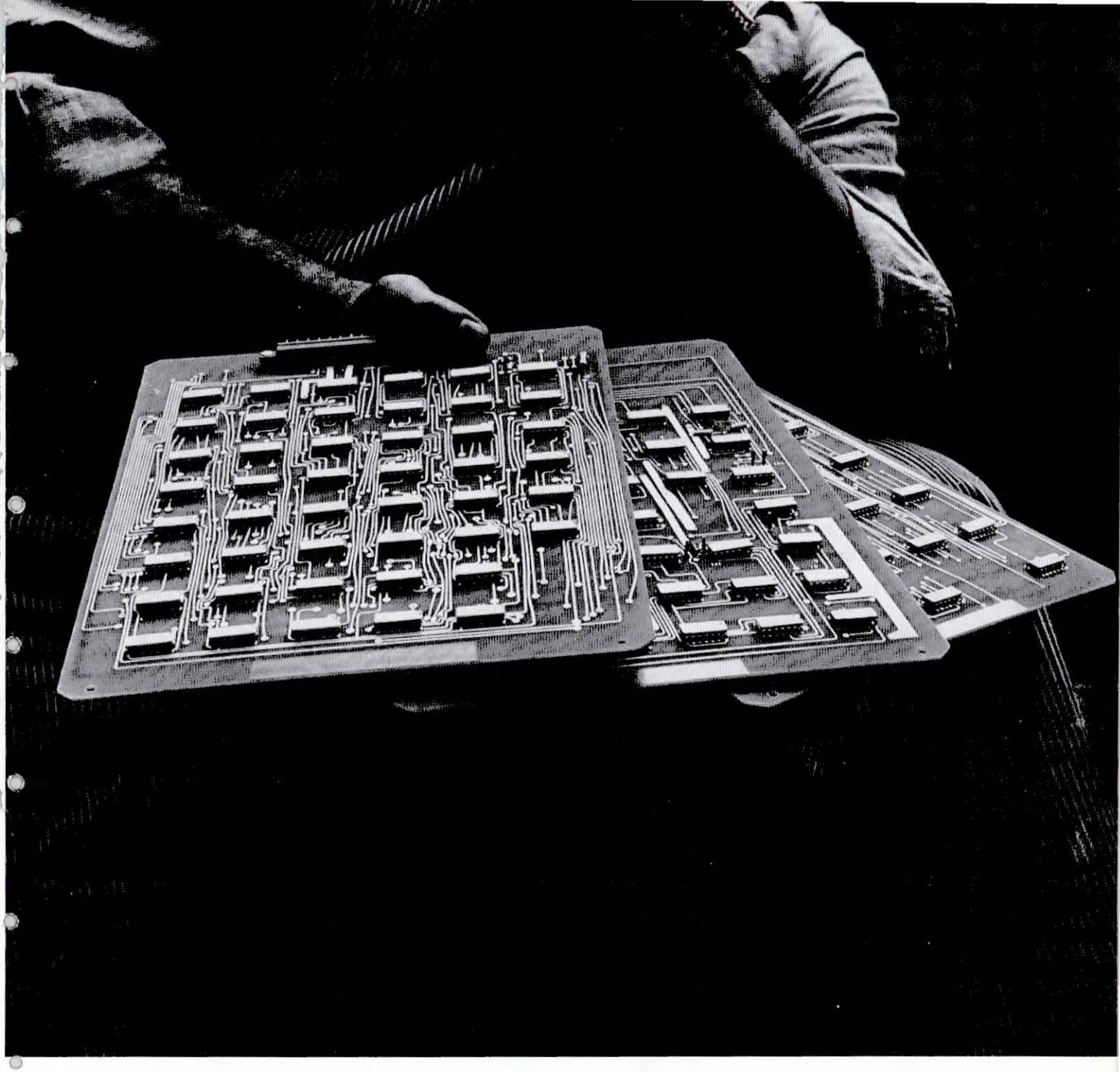
NAME ..... TITLE .....

COMPANY .....

ADDRESS .....

CITY ..... STATE ..... ZIP .....

• **Inquiries can be processed only if title and company are shown.** 11/25/68



Pick a system. Any system.

You pick the system you need with the new KarTrak* ACI by Sylvania. And you can change the system simply by changing circuit cards.

Sylvania's new building block approach gives you the options you want, when you want them.

Start with a basic KarTrak ACI unit. Modify it as your needs require. Add a digital clock, carrier index, data storage, piggyback formatting and other options as you need it. When you need it. And the change is made in a matter of minutes.

Interfacing circuit boards tie your new KarTrak ACI scanner into your present communications system or any system you plan for the future. All with the change of a circuit card.

And Sylvania's new KarTrak ACI also solves your maintenance problems—practically eliminates down time. It's done with rugged, reliable integrated circuits.

When a breakdown does occur, it can be traced and repaired in minutes thanks to Sylvania's new semi-automatic test set. It pins down 90 percent of failures to a card or drawer. Gets the system back on line fast.

For the flexibility you need in ACI systems, talk to the pioneers about the 800 series third generation system.

Sylvania Information Systems, Commercial Electronics Division, Bedford, Massachusetts 01730.

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Leaders in ACI Systems

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A SUBSIDIARY OF GENERAL TELEPHONE & ELECTRONICS

Is LOWER FIRST COST THE *Reason for Buying BARBER Stabilized Trucks?*

COST IS ONLY ONE!

If it was the only one there wouldn't be much reason for specifying Barber Stabilized Trucks. But in addition you get greater lading protection, lower maintenance costs, longer life–the result of "Total Design Concept."

"Talk to the Man from Barber"

BARBER STANDARD CAR TRUCK COMPANY
CHICAGO • PHILADELPHIA • MONTREAL

3679

"OUR OBJECTIVE: NEW WAYS TO IMPROVE SERVICE"

(*Continued from page 34*)
the information is transmitted to the offline system in which historical files will be built.

● **Broad-gauge benefits.** TOPS will do what every well-built computer system will do: Keep track of cars. But there's quite a bit more, as SP outlines it:

—Within its memory banks, TOPS carries the schedule of every train operated on the railroad, "and it will monitor each train's performance. When a yard makes up a train, the entry of a single IBM card will create a train file from the stored schedule. TOPS will then monitor that train from origin to destination, and it will automatically issue advance reports of estimated time of arrival to each yard which the train will pass through. Information will be updated as the train moves, as stations report arrivals, departures and changes in consist. Terminals will be able to plan their switching well in advance of the train's arrival.

—In addition to train movements, each terminal will report other moves which a car may make. Car status will be kept up-to-date, and management will have new opportunity to develop comprehensive studies of train and yard performance.

—TOPS will supply data to any of the 450 reporting units on a random-inquiry basis or by issuance of regular reports. It will also function as a command-and-control system. In the area of car or locomotive distribution, for example, TOPS will monitor compliance with issued orders. It will hoist a flag if a car assigned to one location turns up on a car report as being loaded somewhere else. And it will time-check the file on a certain car to question delays in movement.

—Validity checks are also built in. The file holds a permanent record of all SP cars and an up-to-date registry of foreign-line cars in service in the United States, Canada and Mexico. If an interchange station reports a non-existent or duplicate number, the computer will issue an instant challenge, calling for immediate verification or correction at the source. In similar fashion, the computer will flag not-in-sequence moves.

In putting TOPS together and making it work, a number of elements have been tied together—none more important than trained people and adequate communications facilities.

● **Back to school.** For the training job, SP has equipped six 40-foot office trailers with basic TOPS equipment, and these units are being used as classrooms by the 2,500 people who will be trained in TOPS operation in a program that will stretch over a year and a half.

Each trailer is a two-room rolling schoolhouse—one room set up as a classroom with motion-picture and slide projection equipment, the other built as a practice room with an IBM 1050 and other equipment used in reporting and receiving TOPS data.

When SP set out to develop the system over-all, it worked through both theory and practice, using two-man teams—an SP or IBM computer specialist and an experienced railroad man—to approach each specific problem area. The same approach is used in training: Almost all of the 12 instructors staffing the trailer fleet have held railroad jobs similar to those of the people they're teaching. As SP puts it, "they know what the employee does on his job—and they know how the TOPS equipment can help him do it."

Trailer-classrooms are moved into a given point about four weeks before the scheduled TOPS cutover. Other training follows—on-the-job training supervised by TOPS installation teams. And the TOPS equipment has been programmed with training-modes, so that practice runs can be made on the actual system equipment without disturbing the real in-use files.

● **Microwave network growing.** The communications network for TOPS will be based largely on microwave—5,606 miles of microwave in a system which will be completed late in 1969. It will be, SP says, the nation's largest industrial microwave network.

High reliability factor

From all indications, it will also be one of the most reliable. The system is engineered for a reliability of 99.9999% on a per-hop basis. Experience thus far "has indicated an over-all system reliability of approximately 99.97%."

In operation, the 450 TOPS reporting devices will tie in, by microwave or wire through data hubs at 14 points. These hubs will consolidate data and transmit it over what SP calls "microwave superhighways" to a pair of IBM 2703 transmission control devices attached to the central TOPS computer. The hub system, SP notes, saves many miles of circuitry and at the same time permits regional control and testing of lines. In the total system, 204 repeater stations and terminals will be installed.

SP has done as much as it can to insure reliability of communication. Part of the increased accuracy in transmission, SP people say, comes from use of two microwave dishes instead of one at each transmission point or repeater station. One dish is positioned lower than the other, so that received signals are uncorrelated, arriving at the receiving station at slightly different points in time. This space-diversity system is used throughout, except on a few microwave hops in mountain country where a fading phenomenon is not a problem.

Focal point of the network is a communications data control center in San Francisco, one floor down from the TOPS computer center. Trouble on lines to any of the 450 reporting units can be detected on a control console, which is equipped to indicate the particular type of trouble involved.

Transmission or reception on any line can be thrown onto an oscilloscope for analysis.

Data from field stations is delivered through the control center to IBM 2703 transmission control devices in the computer room. From the 2703s, information is sent to the central computer at a rate of 110,000 characters per second. Two 2703 units will be in service at all times, and a third will be available as a standby.

● **From 1912 to '68.** At this point, TOPS represents 56 years of data-processing refinement on SP. As early as 1912, SP had an automatic data-processing office of sorts for freight accounting, using about 30 punch-card devices. In 1923, the road became the first commercial user of the printing-tabulating machine. In 1956, it was the first user of the IBM 650 computer west of Chicago. It was installing computers to help in classification-yard operations some 14 years ago.

TOPS itself began in 1960 with exploratory work by SP and IBM study teams. A feasibility study was completed, SP recalls, in 1963, and management gave the go-ahead for full development. The first computer came in 1966, for testing programs. The first cutover to an actual operating system came last May, at Brooklyn Yard in Portland.

SP President Biaggini sums up eight years of work this way: "Our objective in developing TOPS is to find new ways to improve service, and to provide the kind of new efficiency in railroad service which our growing area will need in the future.

"Our people will have better control over the whole wide range of day-to-day railroad operations through TOPS. All levels of management will get the timely information needed to speed up service, to know where everything is, to increase the capacity and utilization of our billion-dollar fleet of cars and locomotives, and to streamline paperwork.

"At every level of supervision and at every point of action, railroad men will have the instant information to help them make meaningful decisions not now possible." ■

Beginning the long voyage

HERE YOU SEE a 40-car "land ship" loaded with grain bound west for Seattle—where its cargo will reload for shipping to the Far East.

It's a unit train—one commodity only (nothing less than trainload lots here).

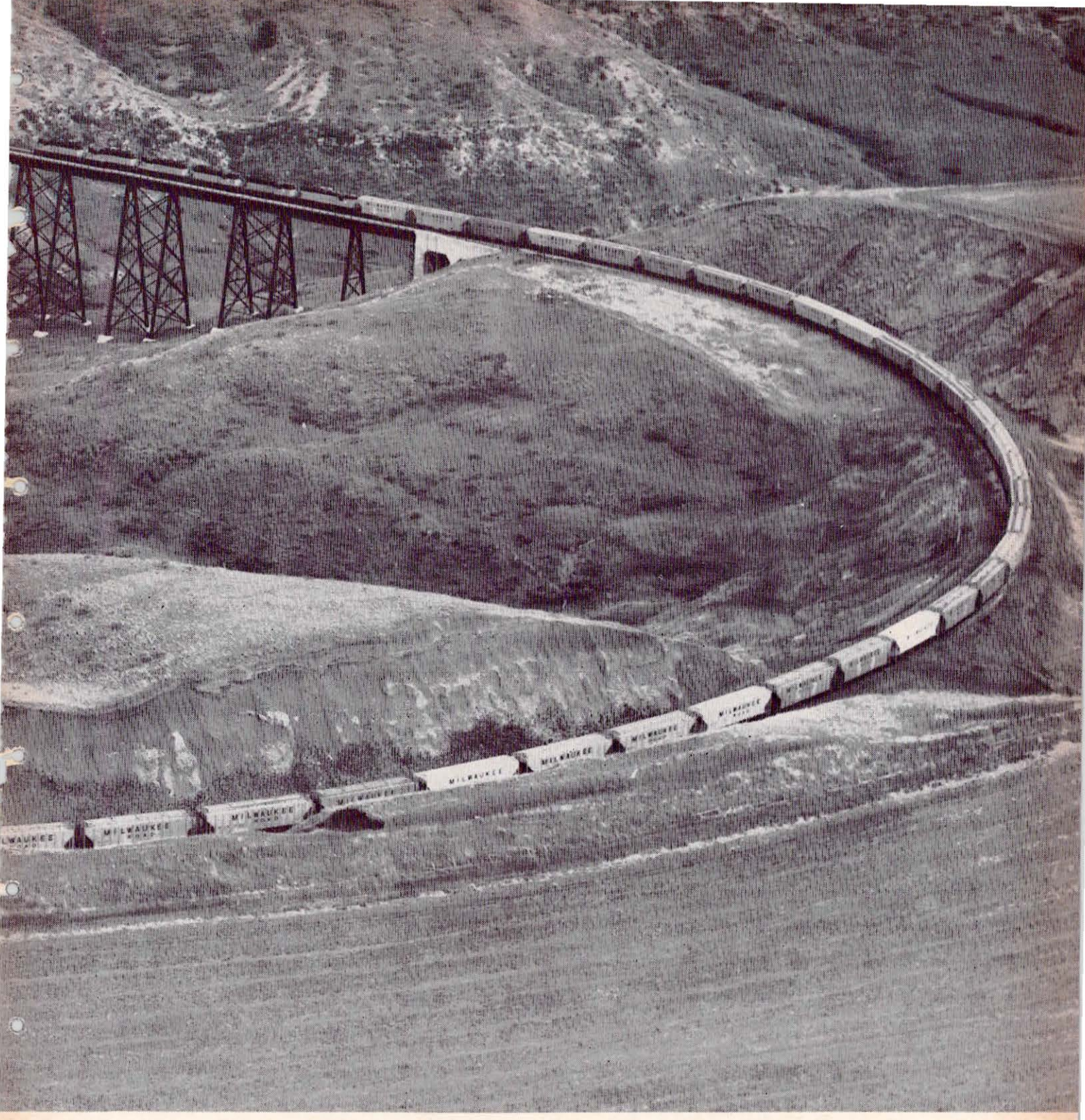
With it, growers in Montana hope to compete more effectively in the grain markets of the world.

And well they may!

That big train with its one "driver" up front is a wonder of modern super-efficiency.

How many trucks would it take to haul such a trainload? Something on the order of 140 or 150 trailer trucks —with 140 or 150 drivers. With tandem rigs, where legal, the number of highway units might be reduced to, say, 110—with 110 drivers.

The fact is that trains—beset and bedevilled as they may be by unfair regulation, unfair taxation and unfair promotion of competitors—are basically the most far-



to Yokohama

out, advanced form of mass transportation of our time...

• A giant rail diesel has a vast advantage in volumetric efficiency over smaller truck engines—less frictional opportunity for each cubic inch of displacement.

• Only trains, with the rails they ride on, are a guided movement system—and thus lend themselves to modern automation.

• Week after week, railroads are coming up with new ideas in specialized cars, new ideas in equipment of every sort, new ideas in communication, in management, in marketing.

Where do railroaders keep up with all this? In the pages of weekly RAILWAY AGE. What a place to tell railroaders about *your* new ideas!

Be part of the weekly excitement in **RAILWAY AGE** *the transportation weekly*

Intermodal: Which route?

(*Continued from page 41*)

porate transportation and distribution for Combustion Engineering, Inc., Windsor, Conn., eloquently sums up the case for common ownership: "As a shipper, I am interested in service from A to B. How it moves from A to B is of less importance than the service rendered."

• **Anti-common-ownership.** Fear of stifled competition and a drift toward monopoly runs through the replies of those who oppose the common-ownership principle. For the most part this group endorses the joint rate/through route approach to intermodalism.

Says C. R. Ellenwood, Jr., traffic manager of the American Plywood Association, Tacoma, Wash.: "Monopolistic transportation enterprises have never proven beneficial to the shipping public. It is unlikely that any great economical savings would be realized through common ownership."

Likewise, C. M. Dunn, Jr., manager of the traffic department of Peden Iron & Steel Co., Houston, Tex., fears that common ownership "would place too much power in the hands of one concern and virtually eliminate competitive practices."

• **"Defeating the purpose."** Leonard H. Borman, traffic manager of Carson Pirie Scott & Co., the Chicago department store, believes that "the creation of single intermodal carriers would stifle competition and defeat their purpose."

"It will be important," echoes J. D. Mitchell, traffic manager of the Coca-Cola Co., Atlanta, Ga., "to retain the element of competition to the degree possible under a program which exploits inherent advantages of each mode."

• **Eventually, but not now.** R. H. Heilman, director of transportation and distribution for the A.O. Smith Corp., Milwaukee, Wis., is for the joint rate/through route method because "this could be accomplished faster, being within the framework of existing laws. This, however, should be considered only as a temporary expedient as pressure should be brought to have our laws changed to make it possible for one mode to purchase other modes."

The status quo is favored by Stanley L. Parker, traffic manager of the Pacific Lumber Co., Scotia, Calif.: "Until that day in 1984 when the ultimate conglomerate takes over the entire country, I think we must assume that rail management has superior expertise in its area, truck management has superior expertise in its area, etc."

• **Socialistic?** W. E. Fincher, general manager of the Houston (Tex.) Port Bureau, Inc., objects to the ideological implications of common ownership: The alternative path—joint rates/through routes—"maintains free enterprise and eliminates trends toward socialism, such as are advocated by that D.O.T. official and others with the same mentality." (The presumed reference is to a recent address by M. Cecil Mackey, assistant secretary of transportation for policy development, in which Mackey suggested that it might be time to re-examine laws prohibiting common ownership.)

The director of distribution for Sears, Roebuck in Los Angeles, J. W. Syme, opposes common ownership because "no central authority will be flexible enough to promote growth through the period of expansion and change."

John T. O'Leary, traffic manager of Harshaw Chemical Co. (a division of Kewanee Oil Co.), Cleveland, Ohio, opposes the control of other modes by railroads because, he says, "Railroad service is terrible. They should clean up their own house before looking into other modes of transportation." ■

If you like being LOOTED, LIED to, LAUGHED at, and LEFT in the LURCH:

If that's your pleasure, then go on using flat cargo seals. Never mind that dishonest employees can open them in seconds, take everything they want, and close them just as quickly . . . all without leaving a shred of evidence behind. Never mind that while the thief goes free, you pay plenty. Never mind that only the Tyden Seal has never been opened without leaving clear proof of tampering. And never mind making us prove it by sending us locked samples of your flat seals (which we'll open, twist the bands of, relock, and return—along with information and free samples of the Tyden Seal). But remember. They know who you are.

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2. Industrial Park Drive Hastings, Michigan 49058 U.S.A.

I don't like being a loser. Please:
☐ Send the info and samples.
☐ Open, twist, and close the flat seals I'm sending.

Name_____
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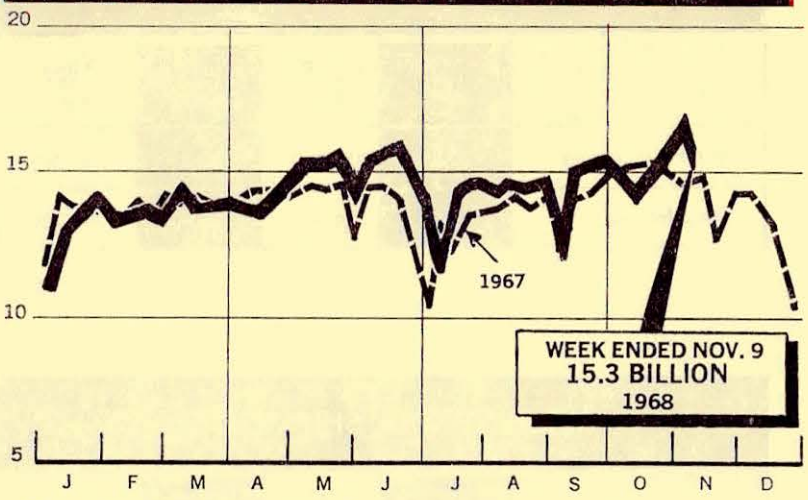
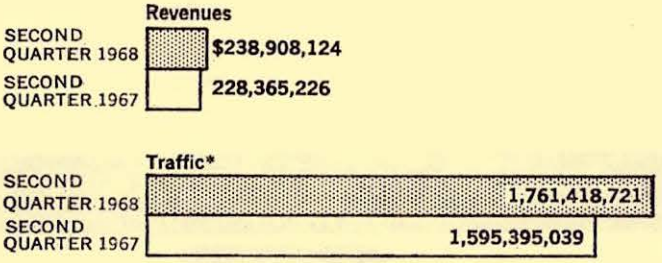
RAIL FREIGHT TRAFFIC TRENDS

BILLION TON-MILES (Estimated)



Source: Association of American Railroads

TRANSPORTATION REVENUE AND TRAFFIC OF OIL PIPE LINE COMPANIES



*Barrels of oil originated on line and received from connection.
Source: Bureau of Accounts, ICC. Compiled from reports of 79 pipe line companies with annual operating revenues exceeding $500,000.

Current Statistics

Net income, Class I roads	
Six months, 1968	$284,000,000
Six months, 1967	$265,000,000
New freight cars on order	
Oct. 1, 1968	16,224
Oct. 1, 1967	24,762
New freight cars delivered	
9 months, 1968	43,062
9 months, 1967	66,451
Serviceable cars	
Oct. 1, 1968	1,386,742
Oct. 1, 1967	1,415,518

NEW ORDERS FOR MACHINE TOOLS*

	September 1968 ($000)	September 1967 ($000)	9 mos. 1968 ($000)	9 mos. 1967 ($000)
Metal cutting tools	70,850	78,800	792,850	891,900
Metal forming tools	22,600	21,600	218,500	205,700

MACHINE TOOL SHIPMENTS*

	September 1968 ($000)	September 1967 ($000)	9 mos. 1968 ($000)	9 mos. 1967 ($000)
Metal cutting tools	115,850	122,400	1,017,150	995,350
Metal forming tools	26,500	31,900	270,850	337,600

*Including foreign and domestic.
Source: National Machine Tool Builders' Association.

GREAT LAKES FREIGHT TONNAGE
MONTH OF SEPTEMBER

	1968 Net Tons	1967 Net Tons	1966 Net Tons
Iron Ore	9,075,296 *(8,102,943)	8,993,630 *(8,030,027)	10,331,357 *(9,224,426)
Coal**	5,996,338	5,695,996	7,216,668
Grain	2,126,684	959,982	2,802,449
TOTAL	**17,198,318**	**15,649,608**	**20,350,474**

CUMULATIVE TOTAL TONNAGE TO OCTOBER 1

	1968 Net Tons	1967 Net Tons	1966 Net Tons
Iron Ore	59,789,477 *(53,383,462)	56,533,518 *(50,476,355)	62,727,271 *(56,006,492)
Coal**	35,942,525	39,209,924	39,890,963
Grain	9,568,141	11,515,669	16,749,685
TOTAL	**105,300,143**	**107,259,111**	**119,367,919**

*Denotes gross tons.
**Includes Lakes Ontario, Erie, and Michigan loadings.

Source: Lake Carriers' Association.

MARKET OUTLOOK

CARLOADINGS

Loadings of revenue freight in the week ended Nov. 16 totaled 554,611 cars, the Association of American Railroads announced on Nov. 21. This was a decrease of 22,569 cars, or 3.9%, compared with the previous week; a decrease of 18,280 cars, or 3.2%, compared with the corresponding week last year; and a decrease of 54,402 cars, or 8.9%, compared with the equivalent 1966 week. Ton-miles generated by carloadings in the week ended Nov. 16 are estimated at 14.7 billion, no change from the corresponding week of 1967, and 2.7% below 1966 week.

REVENUE FREIGHT CARLOADINGS
For the week ended Saturday, Nov. 9

District	1968	1967	1966
Eastern, including Allegheny & Pocahontas	217,174	218,369	225,112
Southern	124,680	119,614	118,888
Total Eastern and Southern Districts	341,854	337,983	344,000
Northwestern	73,222	73,365	80,001
Central Western	119,815	116,994	119,122
Southwestern	42,289	40,939	42,664
Total Western Districts	235,326	231,298	241,787
Total All Roads	577,180	569,281	585,787
Commodities:			
Grain and Grain Products	53,712	53,339	58,742
Livestock	2,563	3,136	3,259
Coal	107,393	110,401	103,873
Coke	7,283	7,930	7,862
Forest Products	43,844	40,817	38,107
Ore	29,654	34,278	39,506
Merchandise l.c.l.	4,354	4,917	6,260
Miscellaneous	328,377	314,433	328,178
Nov. 9	577,180	569,281	585,787
Nov. 2	611,819	575,552	613,751
Oct. 26	597,434	592,495	644,078
Oct. 19	561,854	589,883	623,917
Oct. 12	531,104	583,993	636,542
Cumulative total, 45 weeks	24,590,660	24,473,122	25,865,787
Estimated revenue ton-miles (billions) 45 weeks	648.8	625.8	644.8

PIGGYBACK CARLOADINGS

U. S. piggyback loadings for the week ended Nov. 9 totaled 27,213 cars, carrying 44,423 trailers, compared with 24,897 cars, carrying 40,533 trailers, in the corresponding 1967 week. Loadings for 1968 up to Nov. 9 totaled 1,165,305 cars, carrying 1,898,916 trailers, compared with 1,045,221 cars, carrying 1,718,246 trailers, in the corresponding period of 1967.

LOCOMOTIVES

• *Canadian National.*—Ordered 50 3,000-hp diesel-electric locomotive units from General Motors Diesel Ltd., London, Ont. The units will be added to CN's general-purpose fleet and are scheduled for delivery next year.

• *Penn Central.*— Ordered 100 Alerter locomotive electronic deadman controls from Vapor Corp.

PASSENGER-TRAIN CARS

• *Canadian Pacific.*—Safety Electrical Equipment Corp. will supply Safety-Carrier air-conditioning systems for nine double-deck cars which Canadian Vickers is building for CP.

FOREIGN

• *Yugoslavia.*—The Community of Yugoslav Railways has chosen AMF-Sasib, Bologna, Italy, to equip and automate a 48-track car classification yard in Belgrade. AMF-Sasib is a licensee of the General Railway Signal Co., which is a unit of General Signal Corp., Rochester, N.Y. GRS-Rochester will supply more than $1 million in engineering and major materials under the contract. The project is GRS' first in an Eastern European country. Financing is by the World Bank.

NEW FACILITIES

• *Southern.*—Placed a $10.25-million order with IBM for new data-processing equipment to be installed in Atlanta. Equipment includes two IBM System 360/65 computers and two System 360/50 computers.

• *Canadian National.*—Awarded contracts worth $300,000 to Servo for SERVOSAFE hotbox detector systems. The systems will be installed in CN's Prairie and St. Lawrence regions. The new contracts bring to 1,100 the total number of Servo detector installations in the U.S., Canada and overseas.

• *Penn Central.*—Ordered a 9-ft TCC solid-state control machine from WABCO's Signal & Communications Division for installation at Logansport, Ind. The machine will control operations over 100 miles of line between Anoka, Ind., and Bradford, Ohio.

YOU OUGHT TO KNOW

C&NW iron-ore terminal work "on schedule"

Chicago & North Western is moving ahead rapidly with construction of a $16-million iron-ore storage and transfer terminal at Escanaba, Mich. The facility is scheduled for completion next spring, but the storage area will be ready to receive ore after Jan. 1, well before the opening of the lake shipping season. North Western's terminal will have an initial storage capacity of two million tons of pelletized ore. And, unlike the present set-up, the new facility is designed to permit ore movement from inland mines on a year-around basis. During the shipping season, mid-April through early December, ore will be loaded by conveyor from the storage area or direct from ore trains. Conveyors will have a loading capability of 6,800 long tons per hour; a rotary car dumper will take three ore cars simultaneously and unload at a rate of about 5,000 tons per hour.

BRT transport conference may skip a year

If everything went on schedule, the Brotherhood of Railroad Trainmen would be holding its fourth conference on public transportation early next summer at the University of Chicago. But everything may not go on schedule, and the union may declare a year's postponement. Reasons: (1) The uncertainty involved in the merger proceedings involving BRT and three other operating unions; (2) the absorption of the BRT's public relations department in the merger, the recent BRT convention and the union's participation in the 1969 Gold Spike Centennial; and (3) the problem of developing federal-government participation in a year when there's a changeover in the management. As the BRT puts it, "with three well-planned events behind us, we do not want to go into No. 4 any less prepared."

ICC again delays per-diem order; no date is set

Railroads have been given an indefinite stay from implementing the proposed ICC dual-factor method of determining per-diem charges. The ICC last week postponed a Nov. 15 effective date "until further notice of the Commission." The order's implementation already had been postponed from Oct. 1. Reason for the second delay is an injunction by a U.S. District Court in Omaha, granted in response to a plea from 22 railroads. Under the ICC prescription, mileage would be considered along with time in calculating car-rental charges.

Youngstown reports increased orders by railroads

An increase in new orders by railroads resulted in improved sales and net earnings for Youngstown Steel Door for the third quarter, according to Arthur J. Doyle, president. Net income amounted to $507,106 compared to $103,975 in the same quarter last year. Doyle said the increase in railroad orders began in the early months of 1968 but had its greatest impact the third quarter. Sales for the 1968 and 1967 periods, respectively, were $8,468,629 and $6,919,413.

Signalmen ask NMB to quit wage dispute

The Brotherhood of Railroad Signalmen is convinced its current wage dispute won't be settled in mediation, and the union is asking the National Mediation Board to relinquish jurisdiction. BRS President C. J. Chamberlain asserted that in his opinion, "strike action will be necessary." Chamberlain's main contention: That the railroads "have refused to recognize the gross inequities in the skilled signalmen's pay structure."

Move toward cross-country truck merger

An Interstate Commerce Commission Examiner has recommended the merger of T.I.M.E Freight Inc., DC International Inc., and Los Angeles-Seattle Motor Express, Inc. The combined route structure of the three carriers would be more than 40,000 miles, extending from Los Angeles, San Francisco, Portland, Seattle and Vancouver on the West Coast to Boston and New York in the East.

Accident report proposes study of braking systems

On Oct. 2, 1967, four children were killed when a Union Pacific freight train demolished the rear of a schoolbus at an unprotected grade crossing near Waterloo, Nebr. A little more than a year later, the National Transportation Safety Board has finished its probe of the accident. Among the recommendations is that the Federal Railroad Administration should study the "existing state of the art of railroad passenger and freight train braking systems."

From that study should come "descriptive reports of the capability of such systems to efficiently stop trains in an emergency." The train's recorded speed was 56 miles per hour, and it was speeding up when the brakes went on. For that section of the run, the speed limit was 50 miles per hour—but for traffic control rather than safety purposes, the Board points out.

The train's crewmen said the bus stopped, but then started again and moved into the crossing. The driver apparently was blinded by the sun. The board concluded that under emergency brake application the train's stopping rate was no more than 37% of the theoretical maximum braking rate that could be gained on normal rails. That maximum is the highest possible adhesion without causing wheel sliding. "This problem is a shortcoming in the state of the art of railroad braking," the Board says.

But braking doesn't get all the blame. The crossing upgrade apparently contributed to the driver's inability to see the train by permitting bright sun rays to pass beneath the visor. And there was conflicting testimony on whether the front door was open when the bus stopped. However, the board says that the train was too far away for its horn to be heard, whether the bus door was open or not.

Consequently the Board lists the probable cause as the driver's failure to determine that a train was coming. Contributing causes include selection of a school bus route with two unprotected crossings, lack of school bus routing guidelines including analysis of hazards, direct and reflected glare of early morning sun, and the low audibility of the train's horn within the bus.

Here are some other Board recommendations:

—States without such a rule should consider requiring that a school bus door be opened long enough for a train horn to be heard.

—The Federal Highway Administration and the FRA should study the "questionable audibility" to motorists of external warning signals, and work for uniform signal requirements.

—FHWA, state and local criteria for school bus operating safety should include bus routing to avoid grade crossings whenever possible.

—When unprotected crossings must be used, school buses should carry someone besides the driver to get out and determine that a train isn't coming.

—FHWA should establish a "vehicle safety standard to protect driver vision against external glare."

—FRA should study the visual effectiveness in bright daylight of fixed white locomotive headlights, compared with oscillating or gyrating headlights, flashing strobe or other high-intensity lights.

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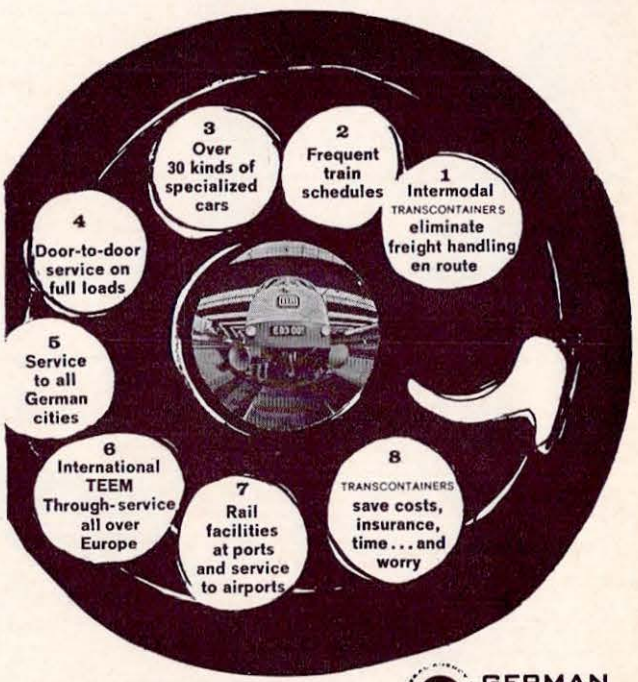
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No deficits for British Rails?

(*Continued from page 50*)

Ministry's "infrastructure grants."

To be paid at a rate of 75% for major approved projects (such as new rapid transit systems), this puts state aid to passenger transport on a par with aid to urban highway development.

• **Freight integration.** The aim of establishing a National Freight Corporation is to integrate existing state-owned freight transport services.

The Corporation will take over all BR's assets, with the exception of freight cars, in the freightliner and freight sundries services, operating them as subsidiary companies.

It will also take over road transport and shipping companies now owned by the Ministry's Transport Holding Company.

BR's only financial interest in the NFC will be a 49% share in the freightliner subsidiary—making it possible for the system to share in the anticipated profit growth of freightliner.

Though the Freight Corporation will be expected in the long run at least to break even, for the first five years the Ministry may make grants of up to $144,000,000. These will help offset losses expected from the freight sundries subsidiary.

• **Public controversy.** One section of the Act which has aroused strong public controversy in Britain provides for a new system of licensing which may force a fair amount of existing highway tonnage onto the railway.

Road vehicles weighing more than 16 tons and making trips of more than 160 km will need a special "quantity" license. Vehicles making shorter runs with such bulk loads as coal and minerals will also need special licenses.

The rub for the road transport operators is in the right given to BR and the NFC to object to licenses being granted—if they can provide a similar service wholly or partly by rail.

Only yardstick to be used by the Minister in granting licenses will be speed, reliability and cost to the consignor. If the freight can be equally well carried by rail the road operator will lose out.

Though finally accepted by both Houses of Parliament (after initial rejection by the Lords), this section of the Act is unlikely to come into full operation until mid-1970. By then the freightliner network should have been much more widely developed.

• **Local transport changes.** Establishment of the Public Transport Authorities should lead to big changes in the organization of local transport in some major industrial areas. First four PTAs to be established will operate in Manchester, Merseyside, the West Midlands and Tyneside.

Others will be created when commissions now considering local government problems have reported.

The PTAs—most members will be locally appointed—will play a key role in meshing together the formerly separate processes of local transport planning and land-use planning. They will have authority directly to operate passenger services, or to operate through subsidiaries.

All existing municipal transport companies will be taken over by the PTAs. Separate arrangements will be made with BR for rail services in the area. Ultimately, the PTAs will take full responsibility for financing all suburban rail services.

Generally, they will be expected to pay their way. But they will have power to ask local authorities to meet estimated deficits as part of over-all government costs.

They'll also get a substantial Ministry cushion in the form of grants to cover any losses on rail services—but only for the first seven years of operation. After that, they will be on their own.

• **BR as major supplier?** Another hotly contested section of the Act makes it possible for BR to tender for outside orders for its extensive and technically advanced workshops. This is a big departure for Britain's state-owned transport industry, previously restricted to manufacturing equipment for its own use. And it could lead to BR becoming a major world supplier.

But it seems unlikely that immediate advantage will be taken of the new powers. Most of the workshops are still fully engaged on supplying equipment for BR.

There is plenty of room for expansion, though. The Derby passenger coach and the Ashford freightliner car plants are both producing on flowline principles. And each is among the most technically advanced plants of its kind in Europe.

So anxieties about the possible emergence of a big new competitor now running through the minds of some British—and European—suppliers may be fully justified.

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VIEWPOINT

Through the back door to nationalization?

No responsible American is today advocating that railroads be thrown into government ownership. But a growing number are beginning to express alarm that the industry may be hell-bent in that direction—not through any organized, sinister plot, but through the back door of miscalculation and neglect.

—Penn Central President Alfred E. Perlman cites the strangling red tape of archaic regulation and warns, "We are at a crossroads. The path we choose will determine whether the transportation industry is to survive as a vital component of the free enterprise system, or whether it will slip into the embrace of bureaucracy through nationalization."

—A. P. Davis, Jr., traffic manager of the Carnation Co., warns that if railroads don't start supplying their customers with the kind of equipment and service they need, then the industry "cannot escape the abyss into which it is headed, and from which nationalization will be the only way out."

—Perry M. Shoemaker, former chief executive of the Jersey Central, raises troubling questions about the trend of certain railroads to diversify *out* of the railroad business and adds, "The specter of nationalization can be around the corner, if such questions as these do not have answers which meet the test of public interest and responsibility."

—A widely-respected western railroad spokesman puts the onus on labor: "The brotherhoods are pinching in on the carriers from two directions, demanding annual pay increases and at the same time blocking labor cost savings from new technology. It has reached the point where we are seriously concerned about the future of the industry as a private enterprise."

—Others fear that the passenger-train hassle could hasten the day of public ownership. Says one: "If it becomes established that railroads must perform certain passenger services without regard to free-enterprise economics, why not certain freight services? Ask Britain and France where this route leads."

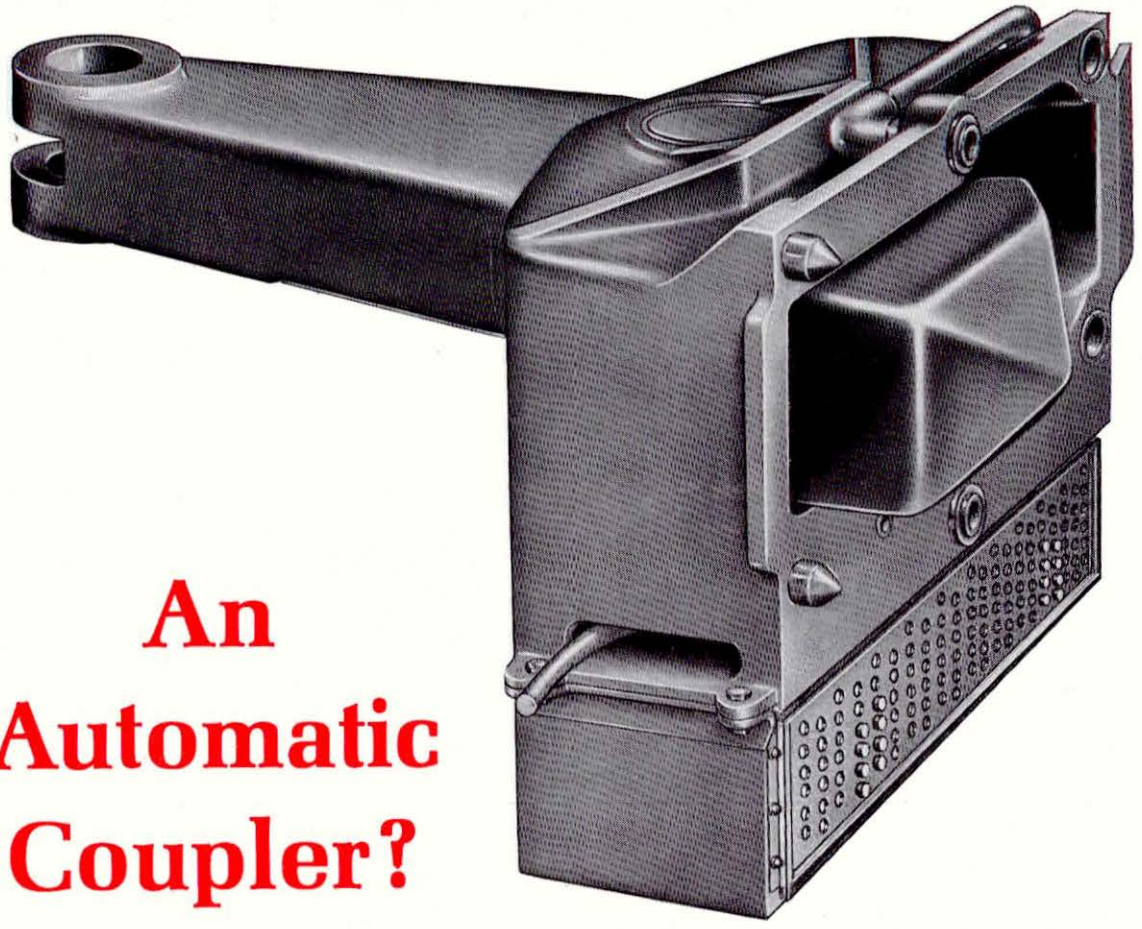
THROUGH ALL THE FEARS, A COMMON THREAD

So everyone has his own, different bag of fears. But are they really so different?

If railroads were freed of some of that archaic red tape, wouldn't they be in a better position to invest the needed billions into the kind of equipment and service their customers are demanding? If they were permitted to operate their businesses in a free-enterprise fashion, subject only to those restraints imposed on other quasi-public utilities, wouldn't they be less tempted to branch out into non-railroad fields?

We don't know the answer. But it's time somebody at least raised the question—not piecemeal, but on a broad, total-picture basis. The new Nixon Administration can do no greater service for transportation—and for transportation users—than to give the highest priority to the following: "Do we want nationalized transportation, or don't we? And if we don't, how can we avoid it?"

As the Carnation man put it: "There is barely time left."



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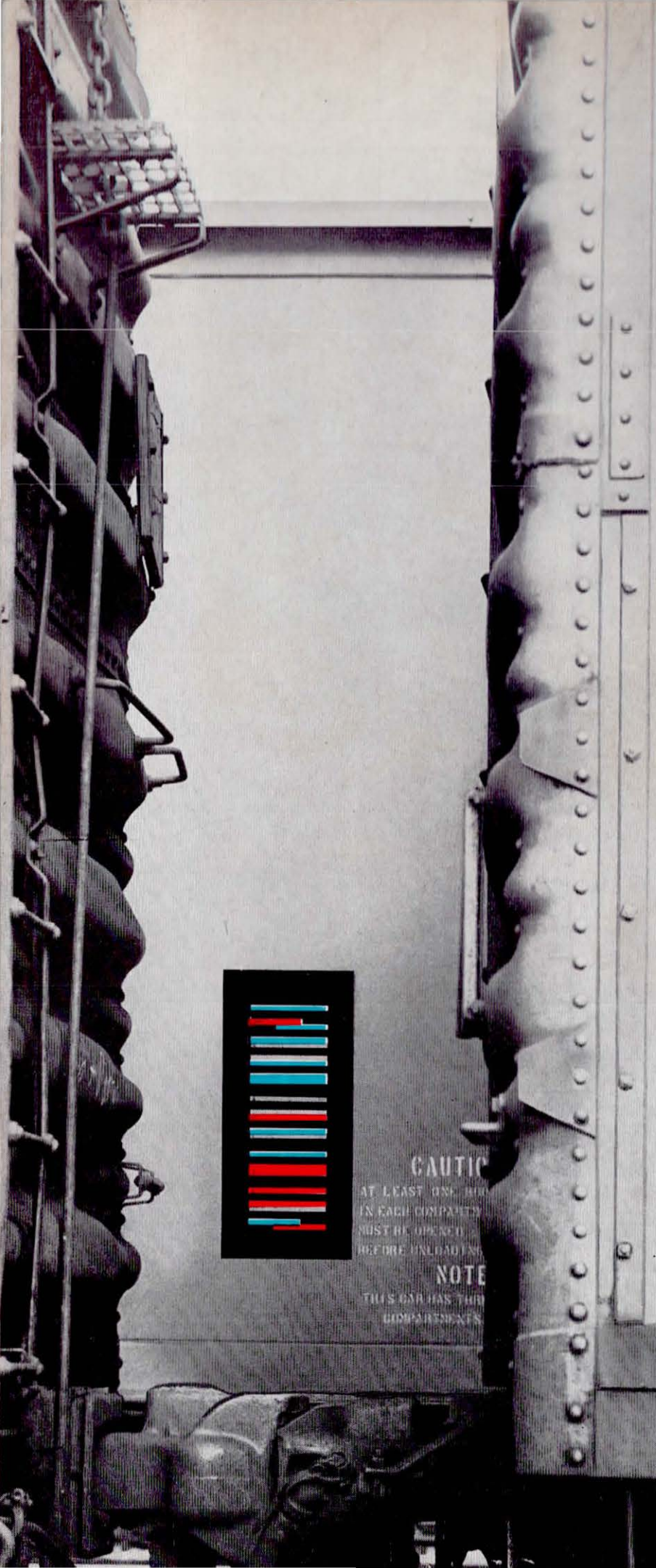

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